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Engineering Record DIRECTORY

OF MANUFACTURERS OF AND DEALERS IN

Engineers' and Contractors'
Machinery and
Supplies



THIRD
EDITION
1910

PUBLICATION OFFICE
239 West 39th St., New York

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Directory

of Manufacturers of and Dealers in

Engineers' and Contractors' Machinery and Supplies

A Classified List of Machinery and
Supplies manufactured or sold by adver-
tisers in the Seventh Annual Contractors'
Number of the Engineering Record

Copyright, 1910, by
McGraw Publishing Company

Published by

Engineering Record

239 West 39th Street

New York

Chicago
Philadelphia

Cleveland
London

ANNOUNCEMENT

This is the third edition of this Directory, which is believed to be the only one published comprised exclusively of manufacturers of, and dealers in, machinery and supplies for engineers' and contractors' use.

It is offered to the subscribers and readers of the Engineering Record in the belief that it will be of considerably greater convenience and value than the preceding editions in view of the increased number of headings, improved both in accuracy and comprehensiveness, coupled with the numerous cross-reference headings which have been added.

It was not intended that this publication should be a complete directory of the trade, for the names listed therein are limited to those companies and individuals whose advertisements appeared in the Seventh Annual Contractors' Number of the Engineering Record dated April 2, 1910.

Of this third edition, 30,500 copies have been printed and distributed among the regular subscribers to the Engineering Record, and to an additional special list of engineers, contractors, purchasing agents, etc., who are interested in the products manufactured and sold by its advertisers.

A CLASSIFIED LIST OF ENGINEERS' AND CONTRACTORS' MACHINERY AND SUPPLIES

Acetylene Lights

Milburn Co., Alexander, Baltimore, Md.

Air Compressors

Abenaque Machine Works, Westminster Sta., Vt.
Advance Pump & Compressor Co., Battle Creek, Mich.
Allis-Chalmers Co., Milwaukee, Wis.
American Air Compressor Works, 26 Cortlandt St., N. Y.
American Well Works, Aurora, Ill.
Baltimore Cooperage Co., 32 S. Howard St., Baltimore.
Blakeslee Mfg. Co., Du Quoin, Ill.
Builders' Material Supply Co., 301-335 Scarrett Bldg.,
Kansas City, Mo.
Channon Co., H., Chicago, Ill.
Dow Pumping Engine Co., Geo. E., 179 First St., San
Francisco.
Dean Bros. Steam Pump Works, Indianapolis, Ind.
Deming Co., Salem, Ohio.
Fairbanks Co., New York and Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hobbs-Ives Equipment & Machine Co., Norfolk, Va.
Independent Pneumatic Tool Co., 1307 Michigan Ave.,
Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York, N. Y.
International Steam Pump Co., 115 B'way, New York.
Inter-State Equipment & Engineering Co., 1775 Old Colony
Bldg., Chicago, Ill.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
McKiernan Drill Co., 115 Broadway, New York.
Mietz, August, 128-138 Mott St., New York.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave.,
Minneapolis, Minn.
Murray Iron Works Co., Burlington I.a
Norwalk Iron Works, South Norwalk, Conn.
Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
Platt Iron Works Co., Dayton, Ohio.
Southwark F'dy & Machine Co., Philadelphia, Pa.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
U. S. Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Wickes Bros., 90 West St., New York.

Air Hose and Couplings

Allis-Chalmers Co., Milwaukee, Wis.
Boston Belting Co., Boston, Mass.
Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Independent Pneumatic Tool Co., 1307 Michigan Ave,
Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.
Janney, Steinmetz & Co., Philadelphia, Pa.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
New York Blasting Supply Co., 11 Broadway, New York.
Revere Rubber Co., Boston, Mass.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Wood Drill Works, Paterson, N. J.

Mention "Engineering Record" when writing.

Air Lift Pumping Machinery

Abenague Machine Works, Westminster Station, Vt.
Advance Pump & Compressor Co., Battle Creek, Mich.
Allis-Chalmers Co., Milwaukee, Wis.
American Air Compressor Works, 26 Cortlandt St., N. Y.
American Well Works, Aurora, Ill.
Builders Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco.
Fairbanks, Morse & Co., Chicago, Ill.
Hush, H. J., 39-41 Cortlandt St., New York.
Ingersoll-Rand Co., 11 Broadway, New York.
Merritt & Co., 125 Front St., Camden, N. J.
Norwalk Iron Works, South Norwalk, Conn.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.

Air Valves (Automatic)

Allis-Chalmers Co., Milwaukee, Wis.
American District Steam Co., Lockport, N. Y.
Ashton Valve Co., 271 Franklin St., Boston, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Coffin Valve Co., Neponset, Boston, Mass.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Jenkins Bros., New York.
Merritt & Co., 125 Front St., Camden, N. J.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Rensselaer Mfg. Co., Troy, N. Y.
Simplex Valve & Meter Co., Philadelphia, Pa.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Waterworks Equipment Co., 50 Church St., New York.

Alloys

Goldschmidt Thermit Co., 90 West St., New York.

Aluminum

Janney, Steinmetz & Co., Philadelphia, Pa.

Aluminum Solder

Janney, Steinmetz & Co., Philadelphia, Pa.

Angles (See Structural Steel)

Anvils

Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk Co., St. Paul, Minn.

Architects' Supplies

Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.
Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
Concrete Steel Engrg. Co., Park Row Bldg., New York.
Geier & Bluhm, Troy, N. Y.
Iszard-Warren Co., 136 N. 12th St., Philadelphia, Pa.
Kolesch & Co., 138 Fulton St., New York.
Lufkin Rule Co., Saginaw, Mich.
Wiebusch & Hilger, 106-110 Lafayette St., New York.
Williams, Brown & Earle, 916 Chestnut St., Phila., Pa.

Architectural and Ornamental Iron Work (See Iron Work, Architectural and Ornamental)

Artesian Well Contractors

Artesian Well & Supply Co., Providence, R. I.
Cyclone Drill Co., Orrville, Ohio.
Phillips & Worthington, 90 West St., New York.

Mention "Engineering Record" when writing.

Artesian Well Pumps (See Pumps, Deep Well)

Artesian Wells, Tools and Pumps (See Well-Drilling Machinery)

Artists' Materials

Iszard-Warren Co., 136 N. 12th St., Philadelphia, Pa.
Kolesch & Co., 138 Fulton St., New York.
Lufkin Rule Co., Saginaw, Mich.
Mittineague Paper Co., Mittineague, Mass.

Asbestos and Asbestos Products

Asbestos Protected Metal Co., Canton, Mass.
Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Johns-Manville Co., H. W., 100 William St., New York.

Asphalt

American Asphaltum & Rubber Co., 600-614 Harvester Bldg., Chicago, Ill.
Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Eastern Asphalt Supply Co., 115 B'way, New York.
Gulf Refining Co., Frick Bldg. Annex, Pittsburg, Pa.
Minwax Co., 1123 Broadway, New York.
Sicilian Asphalt Paving Co., 41 Park Row, New York.
Standard Asphalt & Rubber Co., 205 La Salle St., Chicago, Ill.
Texas Co., 17 Battery Pl., New York.

Asphalt Paving

American Asphaltum & Rubber Co., 600-614 Harvester Bldg., Chicago, Ill.
Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Blome Co., R. S., Unity Bldg., Bank Floor, Chicago, Ill.
Eastern Asphalt Supply Co., 115 B'way, New York.
Sicilian Asphalt Paving Co., 41 Park Row, New York.
United Paving Co., Atlantic City, N. J.

Asphalt Plants and Tools

Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Cummer & Son Co., F. D., 413 Arcade, Cleveland, Ohio.
Drake Standard Machine Works, 1023 W. Jackson Blvd. Chicago, Ill.
Erie Machine Shops, 13th & Peach Sts., Erie, Pa.
Godwin, W. S., Box 95, Times Sq. Sta., New York.
Iroquois Iron Works, Buffalo, N. Y.
Kelly-Springfield Road Roller Co., Springfield, Ohio.
Lake Erie Engineering Works, Buffalo, N. Y.
McCoy Co., Henry J., 65-67 Dey St., New York.
Ruggles-Coles Engrg. Co., 50 Church St., New York.
Union Iron Works, Hoboken, N. J.
Williams Patent Crusher & Pulverizer Co., Chicago, Ill.

Attorneys

King, Geo. A. & Wm. B., Washington, D. C.
Thompson, E. P., 1371 Columbia Rd., Washington, D. C.

Ball Mills

Allis-Chalmers Co., Milwaukee, Wis.
Power & Mining Machinery Co., Milwaukee, Wis.
Prosser & Son, Thomas, 15 Gold St., New York.
Raymond Bros., Impact Pulverizer Co., 1500 Harrison St. Chicago, Ill.

Mention "Engineering Record" when writing.

Ballast Spreaders

Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Ballast Unloaders

Bucyrus Co., So. Milwaukee, Wis.
Fairbanks, Morse & Co., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Marion Steam Shovel Co., Marion, Ohio.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Banks

Coal & Iron National Bank, 143 Liberty St., New York.

Barges

American Bridge Co., 30 Church St., New York.
Ellicott Machine Co., Bush & Severn Sts., Baltimore, Md.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Milliken Bros., Milliken, N. Y.
Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.

Bars, Grate (See Grate Bars)

Bars (Steel)

American Bridge Co., 30 Church St., New York.
American System of Reinforcing, 189 La Salle St., Chicago, Ill.
Belmont Iron Works, Philadelphia, Pa.
Buffalo Steel Co., Tonawanda, N. Y.
Builders' Material Supply Co., 301-335 Scarrett Bldg., Kansas City, Mo.
Carnegie Steel Co., Pittsburg, Pa.
Concrete Steel Engrg. Co., Park Row Bldg., New York.
Concrete Steel Co., 29 Broadway, New York.
Corrugated Bar Co., 1410 Bank of Commerce Bldg., St. Louis, Mo.
General Fireproofing Co., Youngstown, Ohio.
Hough Co., W. B., Monadnock Blk., Chicago, Ill.
Inland Steel Co., Chicago, Ill.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Kenwood Bridge Co., 1416 First Natl. Bank Bldg., Chicago, Ill.
Kratzer & Co., W. N., Pittsburg, Pa.
Lackawanna Steel Co., 2 Rector St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Milliken Bros., Milliken, N. Y.
Mitchell & Tappan, 122 Liberty St., New York.
Pennsylvania Steel Co., Steelton, Pa.
Prosser & Sons, Thomas, 15 Gold St., New York.
Trussed Concrete Steel Co., Detroit, Mich.
Turner Construction Co., New York.
Virginia Bridge & Iron Co., Roanoke, Va.
Whitehead-Kales Iron Works, Detroit, Mich.

Beams (See Structural Steel)

Bearing Metals

Fairbanks Co., New York & Chicago.
Kenwood Bridge Co., 1416 First Nat'l Bank Bldg., Chicago.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Mention "Engineering Record" when writing.

Bearings (Ball and Roller)

Allis-Chalmers Co., Milwaukee, Wis.
Conveying Weigher Co., 92 West St., New York.
Fairbanks Co., New York & Chicago.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Bearings (Oilless and Self-Oiling)

Allis-Chalmers Co., Milwaukee, Wis.
Chain Belt Co., Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave., W. of 17th St., Philadelphia, Pa.
Exeter Machine Works, Exeter, N. H.
Fairbanks Co., New York & Chicago.
Jones & Laughlin Steel Co., Pittsburg, Pa.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
North American Metaline Co., 66 West Ave., Long Island City, N. Y.
Platt Iron Works Co., Dayton, Ohio.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.
Westinghouse Electric & Mfg. Co., East Pittsburg, Pa.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Bellows

Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Obermayer Co., S., Cincinnati, Ohio.

Belt Dressing

Channon Co., H., Chicago, Ill.
Dixon Crucible Co., Jos., Jersey City, N. J.
Fairbanks Co., New York & Chicago.
New York Leather Belting Co., 51 Beekman St., New York City.

Belt Tighteners

Allis-Chalmers Co., Milwaukee, Wis.
Chain Belt Co., Milwaukee, Wis.
Channon Co., H., Chicago, Ill.
Cresson Co., Geo. V., Allegheny Ave., W. of 17th St., Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Belting (Chain, Link, Canvas, Leather, Etc.)

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Bird & Co., J. A. & W., Boston, Mass.
Boston Belting Co., Boston, Mass.
Chain Belt Co., Milwaukee, Wis.
Channon Co., H., Chicago, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Conveying Weigher Co. 92 West St., New York.
Cresson Co., Geo. V., Allegheny Ave., W. of 17th St., Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Goodrich Co., B. F., Akron, Ohio.
McCoy Co., Henry J., 65-67 Dey St., New York.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
National Belting Co., Lawrence, Mass.
New York Leather Belting Co., 51 Beekman St., N. Y.
Revere Rubber Co., Boston, Mass.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Mention "Engineering Record" when writing.

Benders (Rail)

Channon Co., H., Chicago, Ill.
Dudgeon, Richard, 24-26 Columbia St., New York.
Fairbanks Co., New York & Chicago.
McCoy Co., Henry J., 65-67 Dey St., New York.
Watson-Stillman Co., 58 Church St., New York.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Bending, Straightening and Punching Machines

Allis-Chalmers Co., Milwaukee, Wis.
Bertsch & Co., Cambridge City, Ind.
Buffalo Forge Co., Buffalo, N. Y.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Dudgeon, Richard, 24 Columbia St., New York.
Fairbanks Co., New York & Chicago.
Fisher, Robert, 207 8th Ave., New York.
Hanson & Son, A. P., 106-108 W. Adams St., Chicago, Ill.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Pittsburg Mfg. Co., Pittsburg, Pa.
Watson-Stillman Co., 58 Church St., New York.
Wiener Machinery Co., 50 Church St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Blacksmiths' Tools

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Channon Co., H., Chicago, Ill.
Chicago Scale Co., 1021 Jackson Boulevard, Chicago, Ill.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Wiener Machinery Co., 50 Church St., New York.

Blast Furnaces and Fittings

Allis-Chalmers Co., Milwaukee, Wis.
Carroll-Porter Boiler & Tank Co., 907 Empire Building, Pittsburg, Pa.
Lake Erie Engineering Works, Buffalo, N. Y.
McNeil & Bros., James, Pittsburg, Pa.
Petroleum Iron Works Co., Sharon, Pa.
Riter-Conley Manufacturing Co., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.

Blast Hole Loaders

Pyro Clay Products Co., Oak Hill, Ohio.

Blasting Powder

American Dynalite Co., Amherst, Ohio.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
DuPont de Nemours Powder Co., E. I., Wilmington, Del.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
National Powder Co., 200 Fifth Ave., New York.
New York Blasting Supply Co., 11 Broadway, New York.
Sinnamahoning Powder Co., Emporium, Pa.

Blocks and Tackle

American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Broderick & Bascom Rope Co., St. Louis, Mo.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.

Mention "Engineering Record" when writing.

Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Maine Electric Co., Portland, Maine.
Patterson Co., W. W., Pittsburg, Pa.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Stuebner Iron Works, G. L., Foot of 12th St., Long Island City, N. Y.
Vulcan Iron Works, Chicago, Ill.

Blocks and Trolleys

Chisholm & Moore Mfg. Co., Cleveland, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Fairbanks Co., New York & Chicago.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Maine Electric Co., Portland, Maine.
Patterson Co., W. W., Pittsburg, Pa.
Whitehead & Kales Iron Works, Detroit, Mich.

Block Machines (See Building Block Machy.)

Blowers

Allis-Chalmers Co., Milwaukee, Wis.
American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Cyclone Drill Co., Orrville, Ohio.
De Laval Steam Turbine Co., Trenton, N. J.
Exeter Machine Works, Exeter, N. H.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
General Electric Co., Schenectady, N. Y.
Green Fuel Economizer Co., Mattewan, N. Y.
New York Blower Co., Chicago, Ill.
Obermayer Co., S., Cincinnati, Ohio.
Raymond Bros. Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.
Wickes Bros., 90 West St., New York.
Wing Mfg. Co., L. J., 90 West St., New York.

Blue Print Filing Cabinets

Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.
Hamilton Mfg. Co., Rahway, N. J.
Iszard-Warren Co., 138 N. 12th St., Philadelphia, Pa.
Kolesch & Co., 138 Fulton St., New York.
Williams, Brown & Earle, 916 Chestnut St., Phila., Pa.

Blue Printing Machinery

Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.
Buckeye Engine Co., Salem, Ohio.
General Electric Co., Schenectady, N. Y.
Iszard-Warren Co., 138 N. 12th St., Philadelphia, Pa.
Kolesch & Co., 138 Fulton St., New York.
Williams, Brown & Earle, 916 Chestnut St., Phila., Pa.

Boiler Fittings, Mountings and Tubes

American Radiator Co., New York & Chicago.
Lunkenheimer Co., Cincinnati, Ohio.
Murray Iron Works, Burlington, Iowa.
Smith & Son Co., Samuel, Paterson, N. J.
Zelnicker Supply Co., W. A., 406 N. Fourth St., St. Louis, Mo.

Mention "Engineering Record" when writing.

Boiler Makers' Punching Machines

Bertsch & Co., Cambridge City, Ind.
Cockburn Barrow & Machine Co., 30 Church St., New York.
Dudgeon, Richard, 24 Columbia St., New York.
Pels & Co., Henry, 90 West St., New York.
Wiener Machinery Co., 50 Church St., New York.

Boiler Tubes

Lake Erie Engineering Works, Buffalo, N. Y.
Marine Metal & Supply Co., 167 South St., New York.
McDowell & Co., Grant & Western Aves, Allegheny, Pa.
Murray Iron Works Co., Burlington, Iowa.
Prosser & Son, Thos., 15 Gold St., New York.
Smith & Son, Samuel, Paterson, N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Boilers (Heating)

Baldwin, Wm. J., World Bldg., New York.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Exeter Machine Works, Exeter, N. H.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Huber Mfg. Co., Marion, Ohio.
Kewanee Boiler Co., Kewanee, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
Longenecker & Co., Chas. W., 150 Nassau St., New York.
Lord & Burnham Co., Irvington, N. Y.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Murray Iron Works Co., Burlington, Iowa.
Phœnix Iron Works Co., Meadville, Pa.
Scaife & Sons, Wm. B., 221 First Ave., Pittsburg, Pa.
Smith Co., H. B., Westfield, Mass.

Boilers (Hot Water, Copper)

Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Murray Iron Works, Burlington, Iowa.

Boilers (Tubular)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Carroll-Porter Boiler & Tank Co., 907 Empire Bldg., Pittsburg, Pa.
Cyclone Drill Co., Orrville, Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Kewanee Boiler Co., Kewanee, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
Leffel & Co., Jas., Springfield, Ohio.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Longenecker & Co., Chas. W., 150 Nassau St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Morris Co., I. P., Philadelphia, Pa.
Murray Iron Works Co., Burlington, Iowa.
Phœnix Iron Works Co., Meadville, Pa.
Smith & Son Co., Samuel, Paterson, N. J.
Tippett & Wood, Phillipsburg, N. J.
Troy Public Works Co., Utica, N. Y.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Vulcan Iron Works, Wilkesbarre, Pa.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
Wickes Bros., 90 West St., New York.

Mention "Engineering Record" when writing.

Boilers (Water-Tube)

Babcock & Wilcox Co., 85 Liberty St., New York.
Fairbanks, Morse & Co., Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Hobbs-lves Equipment & Machinery Co., Norfolk, Va.
Murray Iron Works Co., Burlington, Iowa.
Parker Boiler Co., Pennsylvania Bldg., Philadelphia, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wickes Bros., 90 West St., New York.

Bolts

American Bridge Co., 30 Church St., New York.
Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Janney, Steinmetz & Co., Philadelphia, Pa.
Milliken Bros., Milliken, N. Y.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Pittsburg Mfg. Co., Pittsburg, Pa.
Star Expansion Bolt Co., 147-149 Cedar St., New York.

Bolts (Expansion, Toggle, Etc.)

Brohard Co., Third St. & Lehigh Ave., Phila., Pa.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Milliken Bros., Milliken, N. Y.
Star Expansion Bolt Co., 147-149 Cedar St., New York.

Bolts (Machine)

Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Milliken Bros., Milliken, N. Y.
Star Expansion Bolt Co., 147-149 Cedar St., New York.

Bonds (Contractors')

Ritch, W. T., 1123 Broadway, New York.

Books (Engineering and Technical)

Ainsworth & Son, Wm., Denver, Col.
Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.
Audel & Co., Theo., 63 Fifth Ave., New York.
Baldwin, Wm. J., World Building, New York.
Journal of Assoc. of Engr. Soc., 31 Milk St., Boston.
Kolesch & Co., 138 Fulton St., New York.
McGraw-Hill Book Co., 239 W. 39th St., New York.
Technical Press Association, 51 Rue Aurore, Brussels, Belgium.
Wiley & Sons, John, 43 East 19th St., New York.

Boosters

General Electric Co., Schenectady, N. Y.
Sturtevant Co., B. F., Hyde Park, Mass.
Trojan Powder Co., 65 Pine St., New York.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Boots

Hayward & Co., S. F., 39 Park Place, New York.
Hundeby Mfg. Co., 2021 Washington Ave., North, Minneapolis, Minn.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
New York Blasting Supply Co., 11 Broadway, New York.
Rubberhide Co., 212 Essex St., Boston, Mass.

Mention "Engineering Record" when writing.

Boots (Elevator)

Bartlett & Snow Co., C. O., Cleveland, Ohio.
Conveying Weigher Co., 92 West St., New York.
Fairbanks Co., New York & Chicago.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Vulcan Iron Works, Wilkesbarre, Pa.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Borings (Test)

Cyclone Drill Co., Orrville, Ohio.
Foundation Co., 115 Broadway, New York.
Keystone Driller Co., Beaver Falls, Pa.
Phillips & Worthington, 90 West St., New York.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Trojan Powder Co., 65 Pine St., New York.

Boxes (Dump)

Austin-Western Co., Ltd., Chicago, Ill.
Barron & Cole Co., 127 Franklin St., New York.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Case Threshing Machine Co., J. I., Racine, Wis.
Columbia Wagon Co., Columbia, Pa.
Newell, A. T., 629 Brown-Marx Bldg., Birmingham, Ala.
Eagle Wagon Works, Auburn, N. Y.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Sharon Boiler Works, Florida St., Sharon, Pa.
Studebaker Bros. Mfg. Co., South Bend, Ind.
Stuebner Iron Works, G. L., Foot of 12th St., Long Island City, N. Y.
Troy Wagon Works, South Walnut St., Troy, Ohio.
Union Iron Works, Hoboken, N. J.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Boxes (Take-Up)

Bartlett & Snow Co., C. O., Cleveland, Ohio.
Conveying Weigher Co., 92 West St., New York.
Fairbanks Co., New York & Chicago.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Braces (Extension)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Buffalo Steel Co., Tonawanda, N. Y.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Dunn Mfg. Co., Pittsburg, Pa.
Kalamazoo Foundry & Machine Co., Kalamazoo, Mich.
Mitchell & Tappen, 122 Liberty St., New York.

Brackets and Cross-Arms

Berlin Construction Co., Berlin, Conn.
Milliken Bros., Milliken, N. Y.
Mitchell & Tappen, 122 Liberty St., New York.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Wyckoff Pipe & Creosoting Co., 50 Church St., New York.

Brick and Tile

Davenport Brick & Tile Co., 226 W. Third St., Davenport, Iowa.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Harbison-Walker Refractories Co., Pittsburg, Pa.
McAvoy Vitified Brick Co., 345 Arch St., Phila., Pa.

Mention "Engineering Record" when writing.

N. Y. State Sewer Pipe Co., Rochester, N. Y.
Raymond Bros. Impact Pulverizer Co., 1500 Harrison St.,
Chicago, Ill.
Warner Co., Charles, Wilmington, Del.

Brick (Building and Sewer)

American Pipe & Construction Co., 112 N. Broad St.,
Philadelphia, Pa.
Davenport Brick & Tile Co., 226 W. Third St., Daven-
port, Iowa.
Metropolitan Paving Brick Co., Canton, Ohio.
National Fire Proofing Co., Pittsburg, Pa.
Warner Co., Charles, Wilmington, Del.

Brick (Paving)

American Asphaltum & Rubber Co., 600-614 Harvester
Bldg., Chicago, Ill.
Davenport Brick & Tile Co., 226 W. Third St., Daven-
port, Iowa.
McAvoy Vitrified Brick Co., 345 Arch St., Phila., Pa.
Metropolitan Paving Brick Co., Canton, Ohio.
National Paving Brick Assn., Indianapolis, Ind.
N. Y. State Sewer Pipe Co., Rochester, N. Y.
United Paving Co., Atlantic City, N. J.
Warner Co., Charles, Wilmington, Del.

Brick Machinery

American Blower Co., Detroit, Mich.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Buckeye Traction Ditcher Co., Findlay, Ohio.
Cleveland Crane & Engineering Co., Wyckliffe, Ohio.
Cummer & Son Co., F. D., 413 Arcade, Cleveland, Ohio.
Drake Standard Machine Works, 1023 W. Jackson Boule-
vard, Chicago, Ill.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
International Sand-Lime Brick & Machinery Co., 90
West St., New York.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Pulsometer Steam Pump Co., 16 Battery Place, N. Y.
Raymond Bros. Impact Pulverizer Co., 1500 Harrison
St., Chicago, Ill.
Ruggles-Coles Engineering Co., 50 Church St., N. Y.
Sturtevant Mill Co., Harrison Square, Boston, Mass.
Williams Patent Crusher & Pulverizer Co., Chicago, Ill.

Bridge Builders

American Bridge Co., 30 Church St., New York.
Ash, John Wm., Austell, Ga.
Baltimore Bridge Co., Baltimore, Md.
Belmont Iron Works, Philadelphia, Pa.
Berlin Construction Co., Berlin, Conn.
Blome Co., R. S., Unity Bldg., Chicago, Ill.
Boston Bridge Works, 47 Winter St., Boston, Mass.
Burger Iron Co., Akron, Ohio.
Central States Bridge Co., Indianapolis, Ind.
Champion Bridge Co., Wilmington, Ohio.
Clinton Bridge & Iron Works, Clinton, Iowa.
Des Moines Bridge & Iron Co., Des Moines, Iowa.
Hennebique Construction Co., 1170 B'way, New York.
Jackson, Geo. W., 754-756 Jackson Blvd., Chicago, Ill.
King Bridge Co., Cleveland, Ohio.
Lackawanna Bridge Co., 50 Church St., New York.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.
Oregonia Bridge Co., Lebanon, Ohio.
Penn Bridge Co., Beaver Falls, Pa.

Mention "Engineering Record" when writing.

Pennsylvania Steel Co., Steelton, Pa.
 Raymond Concrete Pile Co., New York & Chicago.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Scaife & Sons Co., Wm. B., 221 First Ave., Pittsburg, Pa.
 Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block,
 Chicago, Ill.
 Shoemaker & Co., Lewis F., Harrison Bldg., Phila., Pa.
 Snare & Triest Co., 143 Liberty St., New York.
 Terry & Tench, New York.
 Tippet & Wood, Phillipsburg, N. J.
 United Paving Co., Atlantic City, N. J.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
 Wardwell, Frederick S., Stamford, Conn.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg.,
 Milwaukee, Wis.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Bridge Engineers

American Bridge Co., 30 Church St., New York.
 Baltimore Bridge Co., Baltimore, Md.
 Belmont Iron Works, Philadelphia, Pa.
 Berlin Construction Co., Berlin, Conn.
 Boston Bridge Works, 47 Winter St., Boston, Mass.
 Burger Iron Co., Akron, Ohio.
 Clinton Bridge & Iron Works, Clinton, Iowa.
 Concrete Steel Engineering Co., Park Row Bldg., New
 York.
 Hennebique Construction Co., 1170 B'way, New York.
 Lackawanna Bridge Co., 50 Church St., New York.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha
 Ave., Minneapolis, Minn.
 Oregonia Bridge Co., Lebanon, Ohio.
 Penn Bridge Co., Beaver Falls, Pa.
 Pennsylvania Steel Co., Steelton, Pa.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block,
 Chicago, Ill.
 Terry & Tench, New York.
 Virginia Bridge & Iron Co., Roanoke, Va.
 White & Co., J. G., 43-49 Exchange Pl., New York.
 Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg.,
 Milwaukee, Wis.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Bridge Operating Machinery

Allis-Chalmers Co., Milwaukee, Wis.
 Baltimore Bridge Co., Baltimore, Md.
 Fairbanks, Morse & Co., Chicago, Ill.
 Lake Erie Engrg. Works, Buffalo, N. Y.
 Penn Bridge Co., Beaver Falls, Pa.
 Pennsylvania Steel Co., Steelton, Pa.
 Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block,
 Chicago, Ill.
 Vulcan Iron Works, Chicago, Ill.
 Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg.,
 Milwaukee, Wis.

Bridge, Pier and Building Foundations (See Contractors', General), (also Founda- tions)

Bridge Railings

American Bridge Co., 30 Church St., New York.
 Anchor Post Iron Works, 15 Church St., New York.
 Belmont Iron Works, Philadelphia, Pa.

Mention "Engineering Record" when writing.

Berlin Construction Co., Berlin, Conn.
Boston Bridge Works, 47 Winter St., Boston, Mass.
Clinton Bridge & Iron Works, Clinton, Ia.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Milliken Bros., Milliken, N. Y.
Pennsylvania Steel Co., Steelton, Pa.
Riverside Bridge Co., Martins Ferry, Ohio.
Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block,
Chicago, Ill.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Shoemaker & Co., Lewis F., Harrison Bldg., Phila., Pa.

Bridges (Bascule)

American Bridge Co., 30 Church St., New York.
Boston Bridge Works, 47 Winter St., Boston, Mass.
Penn Bridge Co., Beaver Falls, Pa.
Pennsylvania Steel Co., Steelton, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block,
Chicago, Ill.
Snare & Triest Co., 143 Liberty St., N. Y.
Virginia Bridge Iron Co., Roanoke, Va.
Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg.,
Milwaukee, Wis.
Worden-Allen Co., 115 Adams St., Chicago, Ill.

Bridges (Concrete)

Aberthaw Construction Co., Boston, Mass.
American Concrete Steel Co., Newark, N. J.
Ash, John Wm., Austell, Ga.
Blome Co., R. S., Unity Bldg., Chicago, Ill.
Carey Construction Co., 211 Lennox Bldg., Cleveland,
Ohio.
Clinton Bridge & Iron Works, Clinton, Iowa.
Concrete Steel Engrg. Co., Park Row Bldg., New York.
Corrugated Bar Co., 1410 Bank of Commerce Bldg., St.
Louis, Mo.
Cuozzo, Donato, Park Row Bldg., New York.
Ferro-Concrete Construction Co., Richmond & Harriet
Sts., Cincinnati, Ohio.
Foundation Co., 115 Broadway, New York.
Hennebeque Construction Co., 1170 B'way, New York.
Raymond Concrete Pile Co., New York & Chicago.
Snare & Triest Co., 143 Liberty St., New York.
Trussed Concrete Steel Co., Detroit, Mich.
United Paving Co., Atlantic City, N. J.

Bridges (Suspension)

American Bridge Co., 30 Church St., New York.
Boston Bridge Works, 47 Winter St., Boston, Mass.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Newell, A. T., 629 Brown-Marx Bldg. Birmingham, Ala.
Penn. Bridge Co., Beaver Falls, Pa.
Pennsylvania Steel Co. Steelton, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Roebblings Sons Co., Jno. A., Trenton, N. J.

Bridges, Roofs, Etc. (Steel)

American Bridge Co., 30 Church St., New York.
Asbestos Protected Metal Co., Canton, Mass.
Baltimore Bridge Co., Baltimore, Md.
Belmont Iron Works, Philadelphia, Pa.
Berlin Construction Co., Berlin, Conn.
Boston Bridge Works, 47 Winter St., Boston, Mass.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Brown-Ketcham Iron Works, Indianapolis, Ind.

Mention "Engineering Record" when writing.

Burger Iron Co., Akron, Ohio.
 Central States Bridge Co., Indianapolis, Ind.
 Champion Bridge Co., Wilmington, Ohio.
 Clinton Bridge & Iron Works, Clinton, Ia.
 Kenwood Bridge Co., 1416 First Nat'l Bank Bldg., Chicago.
 King Bridge Co., Cleveland, Ohio.
 Kratzer & Co., W. N., Pittsburg, Pa.
 Lackawanna Bridge Co., 50 Church St., New York.
 Lackawanna Steel Co., 2 Rector St., New York.
 Milliken Bros., Milliken, N. Y.
 Milwaukee Bridge Co., Milwaukee, Wis.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave.,
 Minneapolis, Minn.
 Mitchell & Tappen, 122 Liberty St., New York.
 Oregonia Bridge Co., Lebanon, Ohio.
 Penn Bridge Co., Beaver Falls, Pa.
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Scaife & Sons Co., Wm. B., 221 First Ave., Pittsburg, Pa.
 Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block,
 Chicago, Ill.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Shoemaker & Co., Lewis F., Harrison Bldg., Philadelphia.
 Snare & Triest Co., 143 Liberty St., New York.
 Steel Roof Truss Co., 618 New Bank of Commerce Bldg.,
 St. Louis, Mo.
 Terry & Tench, New York.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg.,
 Milwaukee, Wis.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Bronze Founders

Brown-Ketcham Iron Works, Indianapolis, Ind.
 Schreiber & Sons Co., L., Cincinnati, Ohio.

Buckets

Acme Equipment & Engineering Co., Cleveland, Ohio.
 Atkinson Co., Wm. H., Hudson River at 7th St., Hoboken,
 N. J.
 Barron & Cole Co., 127 Franklin St., New York.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Channon Co., H., Chicago, Ill.
 Cockburn Barrow & Machine Co., 30 Church St., N. Y.
 Dobbie Foundry & Machinery Co., Niagara Falls, N. Y.
 Hayward Co., 50 Church St., New York.
 Insley Mfg. Co., Indianapolis, Ind.
 Inter-State Equipment & Engineering Co., 1775 Old Colony
 Bldg., Chicago, Ill.
 Maine Electric Co., Portland, Me.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Mitchell & Tappen, 122 Liberty St., New York.
 Obermayer Co., S., Cincinnati, Ohio.
 Stuebner Iron Works, G. L., foot of 12th St., Long Island
 City, N. Y.
 Union Iron Works, Hoboken, N. J.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland, O.

Buckets (Clam Shell)

Acme Equipment & Engineering Co., Cleveland, Ohio.
 Barron & Cole Co., 127 Franklin St., New York.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Browning Mfg. Co., Cleveland, Ohio.
 Cleveland Crane & Engineering Co., Wickliffe, Ohio.

Mention "Engineering Record" when writing.

Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Haiss Mfg. Co., Geo., New York.
 Hayward Co., 50 Church St., New York.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Hough Co., W. B. Monadnock Block, Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Maine Electric Co., Portland, Me.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 New York Cableway & Engrg. Co., 2 Rector St., N. Y.
 Parker, F. J., Pennsylvania Bldg., Phila., Pa.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Union Iron Works, Hoboken, N. J.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.
 Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland, Ohio.

Buckets (Concrete)

Acme Equipment & Engrg. Co., Cleveland, Ohio.
 American Hoist & Derrick Co., St. Paul, Minn.
 Barron & Cole Co., 127 Franklin St., N. Y.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
 Cockburn Barrow & Machine Co., 30 Church St., N. Y.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago.
 Hains Concrete Machinery Co., Washington, D. C.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Hough Co., W. B. Monadnock Block, Chicago, Ill.
 Hunt Co., C. W., West New Brighton N. Y.
 Insley Mfg. Co., Indianapolis, Ind.
 Inter-State Equipment & Engrg. Co., 1775 Old Colony Bldg., Chicago, Ill.
 Maine Electric Co., Portland, Me.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Mitchell & Tappen, 122 Liberty St., New York.
 Newell, A. T., 629 Brown-Marx Bldg., Birmingham, Ala.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Stuebner Iron Works, G. L., ft. of 12th St., L. I. City, N. Y.
 Union Iron Works, Hoboken, N. J.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.

Buckets (Dredging and Excavating)

Acme Equipment & Machinery Co., Cleveland, Ohio.
 Atkinson Co., Wm., Hudson River, at 7th St., Hoboken, N. J.
 Barron & Cole Co., 127 Franklin St., New York.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Bucyrus Co., So. Milwaukee, Wis.
 Channon Co., H., Chicago, Ill.
 Cresson Co., Geo. V., Allegheny Ave., West of 17th St., Philadelphia, Pa.

Mention "Engineering Record" when writing.

Hayward Co., 50 Church St., New York.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Lidgerwood-Crawford Co., Fisher Bldg., Chicago, Ill.
 Maine Electric Co., Portland, Me.
 Marion Steam Shovel Co., Marion, Ohio.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Mitchell & Tappen, 122 Liberty St., New York.
 New York Cableway & Engineering Co., 2 Rector St., New York.
 Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Vulcan Iron Works, Chicago, Ill.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Wickes Bros., 90 West St., New York.
 Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland, Ohio.

Buckets (Dumping)

Acme Equipment & Engineering Co., Cleveland, Ohio.
 American Hoist & Derrick Co., St. Paul, Minn.
 Baltimore Cooperage Co., 37 S. Howard St., Baltimore.
 Barron & Cole Co., 127 Franklin St., New York.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
 Cockburn, Barrow & Machine Co., 30 Church St., N. Y.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Hunt Co., C. W., West New Brighton, N. Y.
 Insley Mfg. Co., Indianapolis, Ind.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Manitowoc Boiler Works Co., Manitowoc, Wis.
 Marine Metal & Supply Co., 167 South St., New York.
 McCoy Co., Henry, Jr., 65-67 Dey St., New York.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Mitchell & Tappen, 122 Liberty St., New York.
 Newell, A. T., 629 Brown-Marx Bldg., Birmingham, Ala.
 Ohio Ceramic Engrg. Co., Cleveland, Ohio.
 Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Stuebner Iron Works, G. L., Foot of 12th St., Long Island City, N. Y.
 Union Iron Works, Hoboken, N. J.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.

Buckets (Elevator)

Allis-Chalmers Co., Milwaukee, Wis.
 American Hoist & Derrick Co. St. Paul, Minn.
 Atkinson Co., Wm. H., Hudson River at 7th St., Hoboken, N. J.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Chain Belt Co., Milwaukee, Wis.
 Conveying Weigher Co., 92 West St., New York.
 Fairbanks Co., New York & Chicago.
 Hunt Co., C. W., W. New Brighton, N. Y.
 Insley Mfg. Co., Indianapolis, Ind.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Marion Steam Shovel Co., Marion, Ohio.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
 Mitchell & Tappen, 122 Liberty St., New York.

Mention "Engineering Record" when writing.

Newell, A. T., 629 Brown-Marx Bldg., Birmingham, Ala.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Power & Mining Machinery Co., Milwaukee, Wis.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Buckets (Excavating)

Atkinson Co., Wm. H., Hudson River at 7th St., Hoboken, N. J.
Barron & Cole Co., 127 Franklin St., New York.
Bond Co., Harold L., 383 Atlantic Ave., Boston, Mass.
Bucyrus Co., S. Milwaukee, Wis.
Channon Co., H., Chicago, Ill.
Hadsell Engineering Co., Scranton, Pa.
Hayward Co., 50 Church St., New York.
Inter-State Equip. & Eng. Co., 1775 Old Colony Bldg., Chicago, Ill.
Lidgerwood-Crawford Co., 1917 Fisher Bldg., Chicago, Ill.
Marine Metal & Supply Co., 167 South St., New York.
McCoy Co., Henry J., 65-67 Dey St., New York.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Mitchell & Tappen, 122 Liberty St., New York.
Monighan Machine Co., 2016-2030 Carroll Ave., Chicago.
New York Cableway & Engineering Co., 2 Rector St., New York.
Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
Stuebner Iron Works, G. L., Foot of 12th St., Long Island City, N. Y.
Union Iron Works, Hoboken, N. J.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Williams Co., G., 1513 Rockefeller Bldg., Cleveland, O.

Buckets (Orange Peel)

Barron & Cole Co., 127 Franklin St., New York.
Browning Mfg. Co., Cleveland, Ohio.
Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Hayward Co., 50 Church St., New York.
Hunt Co., C. W., W. New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
United States Equipment Co., 1201 Fisher Bldg., Chicago.
Whitehead & Kales Iron Works, Detroit, Mich.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Buckets (Sewer)

Barron & Cole Co., 127 Franklin St., New York.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Browning Mfg. Co., Cleveland, Ohio.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Hayward Co., 50 Church St., New York.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
Mitchell & Tappen, 122 Liberty St., New York.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Stuebner Iron Works, G. L., Foot of 12th St., Long Island City, N. Y.
Union Iron Works, Hoboken, N. J.

Mention "Engineering Record" when writing.

Building Blocks

Ash, John Wm., Austell, Ga.
Marquette Cement Mfg. Co., Marquette Bldg., Chicago.
National Fire Proofing Co., Pittsburg, Pa.
Rockport Granite Co., Rockport, Mass.

Building-Block Machinery

American Cement Machinery Co., St. Louis, Mo.
Cockburn Barrow & Machine Co., 30 Church St., New York.
Fisher Hydraulic Stone & Machinery Co., Baltimore, Md.
International Sand-Lime Brick & Machinery Co., 90 West St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.

Building Material (See Also Cement, Building Blocks and Bridges and Roofs)

Berger Mfg. Co., Canton, Ohio.
Bird & Son, F. W., East Walpole, Mass.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
Chicago Bridge & Iron Works, Chicago, Ill.
Clinton Bridge & Iron Works, Clinton, Iowa.
Concrete Steel Engineering Co., Park Row Bldg., New York.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Fisher Hydraulic Stone & Machinery Co., Baltimore, Md.
Helderberg Cement Co., 78 State St., Albany, N. Y.
Lawrence Cement Co., 1 Broadway, New York.
Milliken Bros., Milliken, N. Y.
National Fire Proofing Co., Pittsburg, Pa.
National Wire Cloth Co., Sandusky, Ohio.
Oregonia Bridge Co., Lebanon, Ohio.
Rockport Granite Co., Rockport, Mass.
Warner Co., Charles, Wilmington, Del.
Whitehead & Kales Iron Works, Detroit, Mich.

Building Papers

Bird & Son, F. W., East Walpole, Mass.
Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
Eastern Asphalt Supply Co. 115 B'way New York.
Farwell, Ozmun, Kirk & Co. St. Paul, Minn.
Standard Paint Co., 100 William St., New York.
Warner Co., Charles, Wilmington, Del.

Bulldozers

Fairbanks Co., New York & Chicago.

Cable Grips

Keays Cable Grip Co., 97 Liberty St., New York.

Cables (Drilling)

American Mfg. Co., 65 Wall St., N. Y.
Broderick & Bascom Rope Co., St. Louis, Mo.
Builders Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Cyclone Drill Co., Orrville, Ohio.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Roebbling's Sons Co., Jno. A., Trenton, N. J.
Trenton Iron Co., Trenton, N. J.

Cables (Manila)

Allis-Chalmers Co., Milwaukee, Wis.
American Mfg. Co., 65 Wall St., N. Y.
Broderick & Bascom Rope Co., St. Louis, Mo.

Mention "Engineering Record" when writing.

Cyclone Drill Co., Orrville, Ohio.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Hunt Co., C. W., West New Brighton N. Y.
Leschen & Sons Rope Co. A., St. Louis, Mo.

Cableways

Bond Co., Harold, L., 383-391 Atlantic Ave., Boston.
Broderick & Bascom Rope Co., St. Louis, Mo.
Carson-Trench Machine Co., 16 Dorrance St., Boston.
Flory Mfg. Co., S., Bangor, Pa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Keays Cable Grip Co., 97 Liberty St., New York.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Longenecker & Co. Chas. W., 150 Nassau St., N. Y.
Maine Electric Co., Portland, Me.
Marine Metal & Supply Co., 167 South St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
New York Cableway & Engineering Co., 2 Rector St., New York.
Roeblings Sons Co., Jno. A., Trenton, N. J.
Trenton Iron Co., Trenton, N. J.
United States Equipment Co. 1201 Fisher Bldg., Chicago, Ill.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Caisson Cylinders

Chicago Bridge & Iron Works, Chicago, Ill.
Clinton Bridge & Iron Works, Clinton, Iowa.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Foundation Co., 115 Broadway, New York.
Mitchell & Tappen, 122 Liberty St., New York.
Petroleum Iron Works Co., Sharon, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Worden-Allen Co., 115 Adams St., Chicago, Ill.

Caisson Cylinders (Wooden)

Baltimore Cooperage Co., 37 S. Howard St., Baltimore.
Clinton Bridge & Iron Works, Clinton, Iowa.
Excelsior Wooden Pipe Co., 916 Balboa Bldg., San Francisco, Cal.
Foundation Co., 115 Broadway, New York.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Caissons

Cockburn, Barrow & Machine Co., 30 Church St., N. Y.
East Jersey Pipe Co., 50 Church St., New York.
Foundation Co. 115 Broadway, New York.
Lackawanna Steel Co., 2 Rector St., New York.
Murray Iron Works Co., Burlington, Iowa.
O'Rourke Engrg. & Construction Co., New York.
Petroleum Iron Works Co., Sharon, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Scaife & Sons Co. Wm. B., Pittsburg, Pa.
United Paving Co., Atlantic City, N. J.

Calculating Machines

Morschhauser, W. A., 3 Madison Ave., New York.

Calking Tools

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Ingersoll-Rand Co., 11 Broadway, New York.
Leadite Co., Inc., Land Title Bldg., Philadelphia, Pa.
Waterworks Equipment Co., 50 Church St., New York.

Mention "Engineering Record" when writing.

Capstans (Hand, Steam and Electric)

Maine Electric Co., Portland, Me.
Williamson Bros. Co., Aramingo Ave. & Cumberland St.,
Philadelphia, Pa.

Car Couplers, Fenders, Parts, Fittings and Car-Wheels

Fairbanks, Morse & Co., Chicago, Ill.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Car Movers and Pushers

Broderick & Bascom Rope Co., St. Louis, Mo.
Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave.,
Minneapolis, Minn.
Obermayer Co., S., Cincinnati, Ohio.
Watson-Stillman Co., Co., 58 Church St., New York.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 N. 4th St., St.
Louis, Mo.

Car Replacers

Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Watson-Stillman Co., 58 Church St., New York.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 N. 4th St. St. Louis.

Cars

Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Fairbanks, Morse & Co., Chicago, Ill.
Hunt Co., C. W., W. New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 1775 Old Colony
Bldg., Chicago, Ill.
Keays Cable Grip Co., 97 Liberty St., New York.
McCoy Co., H. J., 65-67 Dey St., New York.
Ohio Ceramic Engineering Co. Cleveland, Ohio.
Orenstein-Arthur Koppel Co., Pittsburg, Pa.
Peteler Car Co., Minneapolis, Minn.
Russel Wheel & Foundry Co., Detroit, Mich.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Stuebner Iron Works, G. L., Foot of 12th St., Long
Island City, N. Y.
United States Equipment Co., 1201 Fisher Bldg., Chicago,
Union Iron Works, Hoboken, N. J.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 N. Fourth St., St.
Louis, Mo.

Cars (Ballast)

Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Keays Cable Grip Co., 97 Liberty St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown-Marx Bldg., Birmingham, Ala.
Power & Mining Machinery Co., Milwaukee, Wis.
United States Equipment Co., 1201 Fisher Bldg., Chi-
cago, Ill.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Cars (Coal and Ash)

Cockburn Barrow & Machine Co., 30 Church St., New
York.
Hunt Co., C. W., West New Brighton, N. Y.

Mention "Engineering Record" when writing.

Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Keays Cable Grip Co., 97 Liberty St., New York.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Newell, A. T., 629 Brown-Marx Bldg., Birmingham, Ala.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Stuebner Iron Works, G. L., Foot of 12th St., Long Island City, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Union Iron Works, Hoboken, N. J.
Whitehead & Kales Iron Works, Detroit, Mich.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Cars (Concrete)

Acme Equipment & Engineering Co., Cleveland, Ohio.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Cockburn Barrow & Machine Co., 30 Church St., New York.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Keays Cable Grip Co., 97 Liberty St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy & Co., Henry J., 65-67 Dey St., New York.
Newell, A. T., 629 Brown-Marx Bldg., Birmingham, Ala.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Orenstein-Arthur Koppel Co., Pittsburg, Pa.
Smith Co., I. L., Old Colony Bldg., Chicago, Ill.
Stuebner Iron Works, G. L., Foot of 12th St., Long Island City, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Union Iron Works, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Cars, Derrick (Self-Propelling)

American Hoist & Derrick Co., St. Paul, Minn.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Keays Cable Grip Co., 97 Liberty St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.

Cars (Dumping)

Acme Equipment & Engineering Co., Cleveland, Ohio.
Allis-Chalmers Co., Milwaukee, Wis.
Austin-Western Co., Ltd., Chicago, Ill.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Buffalo Pitts Co., Buffalo, N. Y.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Continental Car & Equipment Co., 17 Battery Pl., N. Y.
Eureka Stone & Ore Crusher Co., Cedar Rapids, Iowa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Hunt & Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Keays Cable Grip Co., 97 Liberty St., New York.
Marine Metal & Supply Co., 167 South St., New York.
McCoy Co., Henry J., 65-67 Dey St., New York.
Newell, A. T., 629 Brown-Marx Bldg., Birmingham, Ala.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Orenstein-Arthur Koppel Co., Pittsburg, Pa.

Mention "Engineering Record" when writing.

Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
 Peteler Car Co., Minneapolis, Minn.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Russel Wheel & Foundry Co., Detroit, Mich.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Stephens-Adamson Mfg. Co., Aurora, Ill.
 Stuebner Iron Works, G. L., Foot of 12th St., Long
 Island City, N. Y.
 Union Iron Works, Hoboken, New Jersey.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.
 Zelnicker Supply Co., Walter A., 406 No. 4th St., St.
 Louis, Mo.

Cars (Elevator)

Builders' Material Supply, 301-335 Scarritt Bldg., Kan-
 sas City, Mo.
 Inter-State Equipment & Engineering Co., 1775 Old Col-
 ony Bldg., Chicago, Ill.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Schreiber & Sons Co., Cincinnati, Ohio.

Cars (Flat)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Hobbs & Ives Equipment Machinery Co., Norfolk, Va.
 Hunt & Co., C. W., West New Brighton, N. Y.
 Keays Cable Grip Co., 97 Liberty St., New York.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Parker, F. J., Pennsylvania Bldg., Phila., Pa.
 Peteler Car Co., Minneapolis, Minn.
 Russel Wheel & Foundry Co., Detroit, Mich.
 United States Equipment Co., 1201 Fisher Bldg., Chi-
 cago, Ill.
 Wiener Co., Ernst, 470 Hudson Terminal Bldg., New
 York.

Cars (Gasoline Motor)

Fairbanks, Morse & Co., Chicago, Ill.
 General Electric Co., Schenectady, New York.
 Studebaker Bros. Mfg. Co., So. Bend., Ind.
 Wiener Co., Ernst, 470 Hudson Terminal Bldg., New
 York.

Cars (Hand and Push)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Fairbanks, Morse & Co., Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Standard Scale & Supply Co., 50-52 So. Canal St., Chi-
 cago, Ill.
 Stephens-Adamson Mfg. Co., Aurora, Ill.
 Stuebner Iron Works, G. L., Foot of 12th St., L. I. City.
 N. Y.
 Treadwell Construction Co., Midland, Pa.
 Wiener Co., Ernst, 470 Hudson Terminal, New New.
 Zelnicker Supply Co., Walter A., 406 No. Fourth St.,
 St. Louis, Mo.

Cars (Industrial)

Acme Equipment & Engineering Co., Cleveland, Ohio.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Cockburn Barrow & Machine Co., 30 Church St., New
 York.

Mention "Engineering Record" when writing.

Fairbanks Co., New York & Chicago.
 Fairbanks, Morse & Co., Chicago, Ill.
 Haiss Mfg. Co., Geo., New York.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Keays Cable Grip Co., 97 Liberty St., New York.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Orenstein-Arthur Koppel Co., Pittsburg.
 Russel Wheel & Foundry Co., Detroit, Mich.
 Sharon Boiler Works, Florida St., Sharon, Pa.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Standard Scale & Supply Co., 50-52 So. Canal St., Chicago, Ill.
 Stephens-Adamson Mfg. Co., Aurora, Ill.
 Stuebner Iron Works, G. L., Foot of 12th St., L. I. City, N. Y.
 Treadwell Construction Co., Midland, Pa.
 Union Iron Works, Hoboken, N. J.
 Watson-Stillman Co., 58 Church St., New York.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.

Cars (Inspection)

Fairbanks, Morse & Co., Chicago, Ill.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.

Cars (Mining)

Allis-Chalmers Co., Milwaukee, Wis.
 Carroll-Porter Boiler & Tank Co., 907 Empire Bldg., Pittsburg, Pa.
 Cockburn Barrow & Machine Co., 30 Church St., New York
 Fairbanks, Morse & Co., Chicago, Ill.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Keays Cable Grip Co., 97 Liberty St., New York.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Orenstein-Arthur Koppel Co., Pittsburg.
 Pacific Tank & Pipe Co., 318 Market St., San Francisco.
 Peteler Car Co., Minneapolis, Minn.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Russel Wheel & Foundry Co., Detroit, Mich.
 Stephens-Adamson Mfg. Co., Aurora, Ill.
 Stuebner Iron Works, G. L., Foot of 12th St., L. I. City, N. Y.
 Union Iron Works, Hoboken, N. J.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.

Cars (Tank)

Baltimore Cooperage Co., 37 So. Howard St., Balt., Md.
 Carroll-Porter Boiler & Tank Co., 907 Empire Bldg., Pittsburg, Pa.
 Chicago Bridge & Iron Works, Chicago, Ill.
 Graver Tank Works, Wm., East Chicago, Ind.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Scaife & Sons Co., Wm. B., Pittsburg, Pa.
 Sharon Boiler Works, Florida St., Sharon, Pa.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.
 Zelnicker Supply Co., Walter A., 406 N. Fourth St., St. Louis, Mo.

Cars (Velocipede)

Fairbanks, Morse & Co., Chicago, Ill.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.

Mention "Engineering Record" when writing.

Cars, Second-Hand (See Second-Hand Machinery and Supplies)

Carts and Wagons, Ash and Dump (See Wagons, Ash, also Wagons, Dumping)

Carts (Concrete)

Acme Equipment & Engineering Co., Cleveland, Ohio.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Builders Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Goit Mfg. Co., Inc., Oklahoma City, Oklahoma.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Ransome Concrete Machinery Co., Dunellen, N. J.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Standard Scale & Supply Co., 50-52 So. Canal St., Chicago, Ill.
Sterling Wheelbarrow Co., West Allis, Wis.
Studebaker Bros Mfg. Co., So. Bend, Ind.
Stuebner Iron Works, G. L., Foot of 12th St., L. I. City, N. Y.
Toledo Wheelbarrow Co., Toledo, Ohio.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Castings (Iron)

American Bridge Co., 30 Church St., N. Y.
American District Steam Co., Lockport, N. Y.
Belmont Iron Works, Eddystone, Pa.
Brown-Ketcham Iron Works, Indianapolis, Ind.
Builders' Iron Foundry, Providence, R. I.
Burr, M. E., Champaign, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Dake Engine Co., Grand Haven, Mich.
Donaldson Iron Co., Emaus, Lehigh Co., Pa.
Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
Dunning, W. D., Syracuse, N. Y.
Ellicott Machine Co., Bush & Severn Sts., Baltimore, Md.
Flory Mfg. Co., S., Bangor, Pa.
Fox & Co., John, 253 Broadway, New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Leader Foundry & Machine Co., Quincy, Ill.
Massillon Iron & Steel Co., The Rookery, Chicago, Ill.
McWane Pipe Works, 220 Broadway, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Mitchell & Tappen, 122 Liberty St., New York.
Morris Co., I. P., Philadelphia, Pa.
Peteler Car Co., Minneapolis, Minn.
Phoenix Iron Works Co., Meadville, Pa.
Pittsburg Mfg. Co., Pittsburg, Pa.
Russel Wheel & Foundry Co., Detroit, Mich.
Schrieber & Sons Co., L., Cincinnati, Ohio.
Sessions Foundry Co., Bristol, Conn.
Standard Cast Iron Pipe & Foundry Co., Bristol, Pa.
Union Iron Works, Hoboken, N. J.
U. S. Cast Iron Pipe & Foundry Co., New York.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Whitehead-Kales Iron Works, Detroit, Mich.
Wiener Machinery Co., 30 Church St., N. Y.
Williamson Bros. Co., Aramingo & Cumberland Aves., Philadelphia, Pa.
Wood & Co., R. D., 400 Chestnut St., Phila., Pa.

Mention "Engineering Record" when writing.

Castings (Malleable Iron)

American Cast Iron Pipe Co., Birmingham, Ala.
Broderick & Bascom Rope Co., St. Louis, Mo.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Chisholm & Moore Mfg. Co., Cleveland, Ohio.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Janney, Steinmetz & Co., Philadelphia, Pa.
Massillon Iron & Steel Co., The Rookery, Chicago, Ill.
U. S. Cast Iron Pipe & Foundry Co., New York.

Castings (Manganese Steel)

Manganese Steel Rail Co., 30 Church St., New York.
Mitchell & Tappen, 122 Liberty St., New York.
Pennsylvania Steel Co., Steelton, Pa.
Taylor Iron & Steel Co., High Bridge, N. J.

Castings (Steel)

American Bridge Co., 30 Church St., N. Y.
Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
Ellicott Machine Co., Bush & Severn Sts., Baltimore, Md.
Lake Erie Engineering Works, Buffalo, N. Y.
Mitchell & Tappen, 122 Liberty St., New York.
Morris Co., I. P., Philadelphia, Pa.
Pennsylvania Steel Co., Steelton, Pa.
Prosser & Sons, Thos., 15 Gold St., New York.
Taylor Iron & Steel Co., High Bridge, N. J.

Ceiling and Siding (Iron and Steel)

Asbestos Protected Metal Co., Canton, Mass.
Berger Mfg. Co., Canton, Ohio.
Garry Iron & Steel Co., Cleveland, Ohio.
Milliken Bros., Milliken, N. Y.

Cement

Allentown Portland Cement Co., Allentown, Pa.
Alpha Portland Cement Co., Easton, Pa.
Alsen American Portland Cement Works, 45 Broadway, New York.
American Cement Co., 603-10 Penna. Bldg., Phila., Pa.
Atlas Portland Cement Co., 30 Broad St., New York.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Chicago Portland Cement Co., Chicago, Ill.
Consolidated Rosendale Cement Co., 50 Church St., New York.
Coplay Cement Mfg. Co., Penn Bldg., Philadelphia, Pa.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Edison Portland Cement Co., St. James Bldg., New York.
French & Co., Samuel H., Philadelphia, Pa.
Glens Falls Portland Cement Co., Glens Falls, N. Y.
Hartranft Cement Co., Wm. G., Real Estate Trust Bldg., Philadelphia, Pa.
Helderberg Cement Co., 78 State St., Albany, N. Y.
Hydrolithic Cement Co., 138 Jackson Blvd., Chicago, Ill.
Ironton Portland Cement Co., Ironton, Ohio.
Lawrence Cement Co., 1 Broadway, New York.
Lehigh Portland Cement Co., Allentown, Pa.
Marquette Cement Mfg. Co., Marquette Bldg., Chicago.
New Castle Portland Cement Co., New Castle, Pa.
Peninsula Portland Cement Co., Jackson, Mich.
Universal Portland Cement Co., 115 Adams St., Chicago.
Vulcanite Portland Cement Co., 200 Fifth Ave., New York.
Warner Co., Charles, Wilmington, Del.

Cement (White)

Harrison Waterproofing Materials Co., 30 Church St., New York.
Warner Co., Charles, Wilmington, Del.

Mention "Engineering Record" when writing.

Cement Block and Brick Machines (See Building Block Machines)

Cement Making Machinery (See Ball Mills; Circuit Breakers; Conveying Machinery; Crushing Rolls; Dryers, Cement; Grinding Machinery; Kilns, Cement; Pulverizers; Screens; Separators; Tube Mills)

Cement Mixers (See Mixers, Cement)

Cement Testing Machines (See Testing Machines)

American Cement Machinery Co., St. Louis, Mo.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.

Cement Waterproofing (See Waterproofing Cement)

Cement Weighing Machines

Conveying Weigher Co., 92 West St., New York.
Fairbanks Co., New York & Chicago.
Standard Scale & Supply Co., 50-52 S. Canal St., Chicago, Ill.

Centers

Adjustable Steel Centering Co., Fond Du Lac, Wis.
American Cement Machinery Co., St. Louis, Mo.
Baltimore Bridge Co., Baltimore, Md.
Blaw Collapsible Steel Centering Co., 710 Westinghouse Bldg., Pittsburg, Pa.
Ransome Concrete Machinery Co., Dunellen, N. J.

Chains (Common)

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Chain Belt Co., Milwaukee, Wis.
Channon Co., H., Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Patterson Co., W. W., Pittsburg, Pa.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg,
Seneca Chain Co., Kent, Ohio.
Taylor Iron & Steel Co., High Bridge, N. J.
Terry & Tench Co., New York.

Chains (Sprocket)

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Conveying Weigher Co., 92 West St., New York.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Morse Chain Co., Ithaca, N. Y.
Seneca Chain Co., Kent, Ohio.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Taylor Iron & Steel Co., High Bridge, N. J.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Chairs (Spacing)

National Wire Cloth Co., Sandusky, Ohio.

Channelers

Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Mention "Engineering Record" when writing.

Channels (See Structural Steel)

Chemical Engines

Hayward & Co., S. F., 39 Park Place, New York.

Chemists

Dow & Smith, 24 East 21 st St., New York.

Fuller Engineering Co., Allentown, Pa.

Lehigh Valley Testing Laboratory, Allentown, Pa.

Toch Bros., 320 Fifth Ave., N. Y.

Chimneys (Concrete)

Alphons-Custodis Chimney Construction Co., New York.

Cockburn Barrow & Machine Co., 30 Church St., N. Y.

Hughes, Steeple Jack, 21 Walcott St., Brooklyn, N. Y.

McCoy Co., Henry J., 65-67 Dey St., New York.

National Wire Cloth Co., Sandusky, Ohio.

Stuebner Iron Works, G. L., Foot of 12th St., L. I. City, N. Y.

Trussed Concrete Steel Co., Detroit, Mich.

Weber Chimney Co., 209 State St., Chicago, Ill.

Chimneys (Radial Brick)

Alphons-Custodis Chimney Construction Co., New York.

Heinicke, H. R., 147 Fourth Ave., New York.

Hughes, Steeple Jack, 21 Walcott St., Brooklyn, N. Y.

Kellogg Co., M. W., 50 Church St., New York.

Chimneys (Steel)

Baldwin, Wm. J., World Bldg., New York.

Chicago Bridge & Iron Works, Chicago, Ill.

Cockburn Barrow & Machine Co., 30 Church St., N. Y.

Graver Tank Works, Wm., East Chicago, Ind.

Hughes, Steeple Jack, 21 Walcott St., Brooklyn, N. Y.

Kellogg Co. M. W., 50 Church St., New York.

Lake Erie Engineering Works, Buffalo, N. Y.

McCoy Co., Henry J., 65-67 Dey St., New York.

Milliken Bros., Milliken, N. Y.

Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.

Mitchell & Tappen, 122 Liberty St., New York.

Murray Iron Works, Burlington, Iowa.

Petroleum Iron Works Co., Sharon, Pa.

Phoenix Iron Works Co., Meadville, Pa.

Riter-Conley Mfg. Co., Pittsburg, Pa.

Schreiber & Sons Co., L., Cincinnati, Ohio.

Sharon Boiler Works, Florida St., Sharon, Pa.

Smith & Son Co., Samuel, Paterson, N. J.

Stuebner Iron Works, G. L., Foot of 12th St., L. I. City.

Terry & Tench, New York.

Tippett & Wood, Phillipsburg, N. J.

Treadwell Construction Co., Midland, Pa.

Union Iron Works, Hoboken, N. J.

Virginia Bridge & Iron Co., Roanoke, Va.

Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Whitehead & Kales Iron Works, Detroit, Mich.

Wisconsin Bridge & Iron Co., 605 Colby-Abott Bldg., Milwaukee, Wis.

Chimney Tops (Vitrified Clay)

Eastern Clay Goods Co., 79 Milk St., Boston, Mass.

Hughes, Steeple Jack, 21 Walcott St., Brooklyn, N. Y.

Kellogg Co. M. W., 50 Church St., New York.

N. Y. State Sewer Pipe Co. Rochester, N. Y.

Circuit Breakers

Cutter Co., Philadelphia, Pa.

Mention "Engineering Record" when writing.

Clamps (Bridge)

Broderick & Bascom Rope Co., St. Louis, Mo.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Patterson Co., W. W., Pittsburg.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.

Clamps and Clips (Wire-Rope)

American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Broderick & Bascom Rope Co., St. Louis, Mo.
Channon Co., H., Chicago, Ill.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Patterson Co. W. W., Pittsburg, Pa.
Roebbling's Sons Co., Jno. A., Trenton, N. J.
Star Expansion Bolt Co., 147-149 Cedar St., New York.
Terry & Tench, New York.

Cleaners (Flue)

Fairbanks Co., New York & Chicago.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Cleaners, Water Main (See Water Main Cleaners)

Clevis Nuts

Maine Electric Co., The, Portland, Me.
American Bridge Co., 30 Church St., New York.
Cleveland City Forge & Iron Co., Cleveland, Ohio.
Janney, Steinmetz & Co., Philadelphia, Pa.

Clutches (Friction)

Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Allis-Chalmers Co., Milwaukee, Wis.
Chain Belt Co., Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Cyclone Drill Co., Orrville, Ohio.
Maine Electric Co., Portland, Me.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Platt Iron Works Co., Dayton, Ohio.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Coal and Ore-Handling Machinery

Allis-Chalmers Co., Milwaukee, Wis.
Atlas Dryer Co., Cleveland, Ohio.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Channon Co. H., Chicago, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Conveying Weigher Co., 92 West St., New York.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Leschen & Sons Rope Co., A., St. Louis Mo.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Maine Electric Co., Portland, Me.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
New York Cableway & Engineering Co., 2 Rector St., New York.

Mention "Engineering Record" when writing.

Raymond Bros., Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.
 Robins Conveying Belt Co., 13 Park Row, N. Y.
 Russel Wheel & Foundry Co., Detroit, Mich.
 Stephens-Adamson Mfg. Co., Aurora, Ill.
 Stuebner Iron Works, G. L., foot of 12th St., L. I. City, N. Y.
 Terry & Tench, New York.
 Union Iron Works, Hoboken, N. J.
 Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.
 Whitehead-Kales Iron Works, Detroit, Mich.
 Williams Patent Crusher Pulverizer Co., Chicago, Ill.
 Wisconsin Bridge & Iron Co., 605 Colby-Abbot Bldg., Milwaukee, Wis.

Coal Tipples

American Bridge Co., 30 Church St., New York.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Burger Iron Co., Akron, Ohio.
 Fairbanks, Morse & Co., Chicago, Ill.
 Kratzer & Co., W. N., Pittsburg, Pa.
 Oregonia Bridge Co., Lebanon, Ohio.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Wisconsin Bridge & Iron Co., Milwaukee, Wis.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Cofferdams

Carnegie Steel Co., Pittsburg, Pa.
 Cockburn Barrow & Machine Co., 30 Church St., N. Y.
 Foundation Co., 115 Broadway, New York.
 Heyworth, James O., Harvester Bldg., Chicago, Ill.
 Jones & Laughlin Steel Co., Pittsburg, Pa.
 Lackawanna Steel Co., 2 Rector St., New York.
 Milliken Bros., Milliken, N. Y.
 United Paving Co., Atlantic City, N. J.
 Wardwell, Frederick S., Stamford, Conn.

Colors, Mortar

Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
 Clinton Metallic Paint Co., Clinton N. Y.
 Toch Bros., 320 Fifth Ave., New York.
 Warner Co., Charles, Wilmington, Del.

Compressed - Air Tools (See Pneumatic Tools)

Concrete Barrows

Acme Equipment & Engineering Co., Cleveland, Ohio.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
 Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
 Cockburn Barrow & Machine Co., 30 Church St., New York.
 Fairbanks Co., New York & Chicago.
 Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Inter-State Equipment & Engineering Co. 1775 Old Colony Bldg., Chicago, Ill.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Stuebner Iron Works, G. L., Foot of 12th St., L. I. City, N. Y.
 Toledo Wheelbarrow Co., Toledo, Ohio.
 Union Iron Works, Hoboken, N. J.

Mention "Engineering Record" when writing.

Concrete Block Machines (See Building Block Machines)

Concrete Construction

Aberthaw Construction Co., Boston, Mass.
Adjustable Steel Centering Co., Fond Du Lac, Wis.
American Concrete Steel Co., Newark, N. J.
Ash, John Wm., Austell, Ga.
Baltimore Bridge Co., Baltimore, Md.
Blaw-Collapsible Steel Centering Co., 710 Westinghouse Bldg., Pittsburgh, Pa.
Blome Co., R. S., Unity Bldg., Chicago, Ill.
Carey Construction Co., 211 Lenox Bldg., Cleveland, O.
Clinton Bridge & Iron Works, Clinton, Iowa.
Concrete Steel Co., 29 Broadway, New York.
Concrete Steel Engrg. Co., Park Row Bldg., New York.
Cuozzo, Donato, Park Row Bldg., New York.
Ferro-Concrete Construction Co., Richmond & Harriet Sts., Cincinnati, O.
Foundation Co., 115 Broadway, New York.
Hennebique Construction Co., 1170 Broadway, New York.
Heyworth, James O., Harvester Bldg., Chicago, Ill.
Interlocking Steel Co., Cleveland, O.
Jackson, Geo. W., 754-756 Jackson Blvd., Chicago, Ill.
Kidde, Walter, 140 Cedar St., New York.
MacArthur Concrete Pile Co., 11 Pine St., New York.
National Fire Proofing Co., Pittsburgh, Pa.
Oregonia Bridge Co., Lebanon, O.
Ransome, Ernest L., 11 Broadway, New York.
Raymond Concrete Pile Co., New York & Chicago.
Reinforced Concrete Pipe Co., Jackson, Mich.
Roebbling Construction Co., 949 Broadway, New York.
Trussed Concrete Steel Co., Detroit, Mich.
Tucker & Vinton, 103 Park Ave., New York.
Turner Construction Co., New York.
White & Co., J. G., 43-49 Exchange Pl., New York.
United Paving Co., Atlantic City, N. J.
Waterproofing Co., New York.
Weber Chimney Co., 209 State St., Chicago, Ill.

Concrete (Reinforced)

Aberthaw Construction Co., Boston, Mass.
American Concrete Steel Co., Newark, N. J.
American Luxfer Prism Co., 42 Madison St., Chicago, Ill.
Baltimore Bridge Co., Baltimore, Md.
Blome Co., R. S., Unity Bldg., Chicago, Ill.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Calumet Steel Co., Chicago, Ill.
Carnegie Steel Co., Pittsburg, Pa.
Clinton Bridge & Iron Works, Clinton, Iowa.
Concrete Steel Co., 29 Broadway, New York.
Concrete Steel Engrg. Co., Park Row Bldg., New York.
Cuozzo, Donato, Park Row Bldg., New York.
D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
Ferro-Concrete Construction Co., Richmond & Harriet Sts., Cincinnati, O.
Foundation Co., 115 Broadway, New York.
French, Arthur W., Worcester Polytechnic Institute, Worcester, Mass.
General Fireproofing Co., Youngstown, O.
Hennebique Construction Co., 1170 Broadway, New York.
Interlocking Steel Co., Cleveland, O.
Kidde, Walter, 140 Cedar St., New York.
Lock Joint Pipe Co., 165 Broadway, New York.

Mention "Engineering Record" when writing.

MacArthur Concrete Pile Co., 11 Pine St., New York.
 Marquette Cement Mfg. Co., Marquette Bldg., Chicago.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 National Fire Proofing Co., Pittsburgh, Pa.
 Raymond Concrete Pile Co., New York & Chicago.
 Reinforced Concrete Pipe Co., Jackson, Mich.
 Roebbling Construction Co., 949 Broadway, New York.
 Trussed Concrete Steel Co., Detroit, Mich.
 Tucker & Vinton, 103 Park Ave., New York.
 Turner Construction Co., New York.
 United Paving Co., Atlantic City, N. J.
 Weber Chimney Co., 209 State St., Chicago, Ill.
 White & Co., J. G., 43-49 Exchange Pl., New York.

Concrete Mixers (See Mixers Concrete)

Concrete Reinforcement

Alberthaw Construction Co., Boston, Mass.
 American Steel & Wire Co., 115 Adams St., Chicago, Ill.
 American System of Reinforcing, 189 La Salle St., Chicago, Ill.
 Buffalo Steel Co., Tonawanda, N. Y.
 Builders' Material Supply Co., 301-335 Scarrett Bldg., Kansas City, Mo.
 Calumet Steel Co., Chicago, Ill.
 Carey Construction Co., 211 Lenox Bldg., Cleveland, O.
 Clinton Wire Cloth Co., Clinton, Mass.
 Concrete Steel Co., 29 Broadway, New York.
 Corrugated Bar Co., 1410 Bank of Commerce Bldg., St. Louis, Mo.
 General Fireproofing Co., Youngstown, O.
 Hough Co., W. B., Monadnock Bldg., Chicago, Ill.
 Hudson Structural Steel Co., 136th St. & So. Boulevard, New York.
 Inland Steel Co., Chicago, Ill.
 Interlocking Steel Co., Cleveland, O.
 Jones & Laughlin Steel Co., Pittsburgh, Pa.
 Mitchell & Tappen, 122 Liberty St., New York.
 National Wire Cloth Co., Sandusky, O.
 Ransome, Ernest L., 11 Broadway, New York.
 Roebbling Construction Co., 949 Broadway, New York.
 Trussed Concrete Steel Co., Detroit, Mich.
 Turner Construction Co., New York.
 Warner Co., Charles, Wilmington, Del.

Concrete Waterproofing (See Waterproofing, Cement Concrete)

Condensers

Alberger Condenser Co., 140 Cedar St., New York.
 Alberger Pump Co., 140 Cedar St., New York.
 Allis-Chalmers Co., Milwaukee, Wis.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Dean Bros. Steam Pump Works Indianapolis, Ind.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Epping-Carpenter Co., Pittsburg, Pa.
 International Steam Pump Co., 115 Broadway, New York.
 Kellogg Co., M. W., 50 Church St., New York.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
 Phoenix Iron Works Co., Meadville, Pa.
 Platt Iron Works Co., Dayton, Ohio.
 Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
 Southwark Foundry & Machine Co., Philadelphia, Pa.
 Union Steam Pump Co., Battle Creek, Mich.

Mention "Engineering Record" when writing.

Westinghouse Machine Co., Pittsburg, Pa.
Wheeler, C. H., Mfg. Co., Philadelphia, Pa.
Williamson Bros.' Co., Aramingo Ave. & Cumberland,
Philadelphia, Pa.

Conduit Work

Adjustable Steel Centering Co., Fond Du Lac, Wis.
Blaw Collapsible Steel Centering Co., 710 Westinghouse
Bldg., Pittsburgh, Pa.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Fibre Conduit Co., Orangeburg, N. Y.
Johns-Manville Co., H. W., 100 William St., New York.
Minwax Co., 1123 Broadway, New York.
United Paving Co., Atlantic City, N. J.
White & Co., J. G., 43-49 Exchange Pl., New York.

Conduits (Creosoted Wood)

Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Wyckoff Pipe & Creosoting Co., 50 Church St., New
York.

Conduits (Electric Wiring)

Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Johns-Manville Co., H. W., 100 William St., New York.

Conduits (Steel)

Graver Tank Works, Wm., East Chicago, Ind.
Mitchell & Tappen, 122 Liberty St., New York.

Conduits (Vitrified Clay)

Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Evans & Howard Fire Brick Co., St. Louis, Mo.
National Fire Proofing Co., Pittsburg, Pa.
N. Y. State Sewer Pipe Co., Rochester, N. Y.
Warner Co., Charles, Wilmington, Del.

Contractors (General)

Aberthaw Construction Co., Boston, Mass.
American Concrete Steel Co., Newark, N. J.
Ash, John Wm., Austell, Ga.
Atlantic Gulf & Pacific Co., Park Row Bldg., New York.
Blome Co., R. S., Unity Bldg., Chicago, Ill.
Carey Construction Co., 211 Lennox Bldg., Cleveland.
Central States Bridge Co., Indianapolis, Ind.
Champion Bridge Co., Wilmington, Ohio.
Concrete Steel Co., 29 Broadway, New York.
Cuozzo, Donato, Park Row Bldg., New York.
Ellicott Machine Co., Bush & 7th Sts., Baltimore, Md.
Foundation Co., 115 Broadway, New York.
Hennebique Construction Co., 1170 B'way, New York.
Heyworth, James O., Harvester Bldg., Chicago, Ill.
Jackson, Geo. W., 754-756 Jackson Blvd., Chicago, Ill.
Kidde, Walker, 140 Cedar St., New York.
Lackawanna Bridge Co., 50 Church St., New York.
Lackawanna Steel Co., 2 Rector St., New York.
MacArthur Concrete Pile Co., 11 Pine St., New York.
N. Y. Continental Jewell Filtration Co., 15 Broad St.,
New York.
O'Rourke Engrg. & Construction Co., New York.
Scherzer Rolling Lift Bridge Co., 1616 Monadnock
Block, Chicago, Ill.
Snare & Triest, 143 Liberty St., New York.
Tucker & Vinton, 103 Park Ave., New York.
United Paving Co., Atlantic City, N. J.
Wardwell, Frederick S., Stamford, Conn.
Worden-Allen Co., 115 Adams St., Chicago, Ill.

Mention "Engineering Record" when writing.

Conveying Machinery

Allis-Chalmers Co. Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Atlas Dryer Co., Cleveland, Ohio.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Channon Co., H., Chicago, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Conveying Weigher Co., 92 West St., New York.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Hadsell Engineering Co., Scranton, Pa.
Hunt Co., C. W., West New Brighton, N. Y.
Maine Electric Co., Portland, Me.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Power & Mining Machinery Co., Milwaukee, Wis.
Robins Conveying Belt Co., 13 Park Row, N. Y.
Russel Wheel & Foundry Co., Detroit, Mich.
Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.
Trenton Iron Co., Trenton, N. J.
Union Iron Works, Hoboken N. J.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.
Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland, O.

Conveyors (Automatic Power)

Fairbanks Co., New York & Chicago.
Hunt Co., C. W., West New Brighton, N. Y.
Russel Wheel & Foundry Co., Detroit, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Conveyors (Belt)

Bartlett & Snow Co., C. O., Cleveland, Ohio.
Boston Belting Co., Boston, Mass.
Chain Belt Co., Milwaukee, Wis.
Conveying Weigher Co., 92 West St., New York.
Cresson, Geo. V., Co., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Hunt Co., C. W., West New Brighton, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
National Belting Co., Lawrence, Mass.
N. Y. Leather Belting Co., 51 Beekman St., New York.
Power & Mining Machinery Co., Milwaukee, Wis.
Revere Rubber Co., Boston, Mass.
Robins Conveying Belt Co., 13 Park Row, New York.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Conveyors (Cable)

Bartlett & Snow Co., C. O., Cleveland, Ohio.
Broderick & Bascom Rope Co., St. Louis, Mo.
Carson Trench Machine Co., 16 Dorrance St., Boston, Mass.
Chain Belt Co., Milwaukee, Wis.
Hunt Co., C. W., West New Brighton, N. Y.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Trenton Iron Co., Trenton, N. J.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Mention "Engineering Record" when writing.

Conveyors (Chain)

Bartlett & Snow Co., C. O., Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Mead-Morison Mfg. Co., Cambridge, Mass.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Power & Mining Machinery Co., Milwaukee, Wis.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Conveyors (Trench Excavating)

Buckeye Traction Ditcher Co., Findlay, Ohio.
Chain Belt Co., Milwaukee, Wis.
Marion Steam Shovel Co., Marion, Ohio.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
New York Cableway & Engineering Co., 2 Rector St., New York.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Cooling Towers

Alberger Condenser Co., 140 Cedar St., New York.
Alberger Pump Co., 140 Cedar St., New York.
Dean Bros. Steam Pump Works, Indianapolis, Ind.
Graver Tank Works, Wm., East Chicago, Ind.
International Steam Pump Co., 115 B'way, New York.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Wheeler, C. H., Mfg. Co., Philadelphia, Pa.

Cordage

American Mfg. Co., 65 Wall St., New York.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Broderick & Bascom Rope Co., St. Louis, Mo.
Channon Co., H., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.

Cornices

Berger Mfg. Co., Canton, Ohio.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Milliken Bros., Milliken, N. Y.

Corporation Cocks

Clow, James B., & Sons, 342 Franklin St., Chicago, Ill.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Powell Co., Wm., Cincinnati, Ohio.
Smith, A. P., Mfg. Co., Passaic Ave., N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Waterworks Equipment Co., 50 Church St., New York.

Couplings (Flange)

Allis-Chalmers Co., Milwaukee, Wis.
American Spiral Pipe Works Chicago, Ill.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Broderick & Bascom Rope Co., St. Louis, Mo.
Chain Belt Co., Milwaukee, Wis.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Leader Foundry & Machine Co., Quincy, Ill.
Marine Metal & Supply Co., 167 South St., New York.

Mention "Engineering Record" when writing.

Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Smith Mfg. Co., A. P., Passaic Ave., Newark, N. J.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Couplings (Friction Clutch)

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cresson, Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Fairbanks Co., New York & Chicago, Ill.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Platt Iron Works Co., Dayton, Ohio.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Couplings (Large Pipe)

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Marine Metal & Supply Co., 167 South St., New York.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Couplings (Pipe)

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Marine Metal & Supply Co., 167 South St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Couplings (Shaft)

Chain Belt Co., Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Platt Iron Works Co., Dayton, Ohio.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Covering (See Pipe and Boiler Covering)

Cranes and Hoists

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Browning Mfg. Co., Cleveland, Ohio.
Channon Co., H., Chicago, Ill.
Chisolm & Moore Mfg. Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Euclid Crane & Hoist Co., Euclid, Ohio.
Fairbanks Co., New York & Chicago.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Maine Electric Co., Portland, Me.
Obermayer Co., S., Cincinnati, Ohio.
Peteler Car Co., Minneapolis, Minn.
Zelnicker Supply Co., W. A., 406 N. 4th St., St. Louis.

Mention "Engineering Record" when writing.

Cranes (Air)

Ingersoll-Rand Co., 11 Broadway, New York.
Maine Electric Co., Portland, Me.
Obermayer Co., S., Cincinnati, Ohio.

Cranes (Derrick)

American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Browning Mfg. Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Maine Electric Co., Portland, Me.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
New York Cableway & Engineering Co., 2 Rector St., New York.
Terry & Tench, New York.
Williams Co., G. H., 1513 Rockefeller Bldg, Cleveland, O.

Cranes (Electric)

Brown Hoisting Machinery Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Contractors Plant Mfg. Co., 120 Erie St., Buffalo, N. Y.
Euclid Crane & Hoist Co., Euclid, Ohio.
Kratzer & Co., W. N., Pittsburg, Pa.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co. 1775 Old Colony Bldg., Chicago, Ill.
Maine Electric Co., Portland, Me.
Obermayer Co., S., Cincinnati, Ohio.

Cranes (Hand-Power)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wyckliffe, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Ellicott Machine Co., Bush & 7th Sts., Baltimore, Md.
Hunt Co., C. W., West New Brighton, N. Y.
Maine Electric Co., Portland, Me.
Terry & Tench, New York.
Whitehead-Kales Iron Works, Detroit, Mich.

Cranes (Jib)

Allis-Chalmers Co., Milwaukee, Wis.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Browning Mfg. Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wyckliffe, Ohio.
Contractors' Plant Mfg Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Maine Electric Co., Portland, Me.
Terry & Tench, New York.
Whitehead & Kales Iron Works, Detroit, Mich.

Cranes (Locomotive)

American Hoist & Derrick Co., St. Paul, Minn.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Browning Mfg. Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wyckliffe, Ohio.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.

Mention "Engineering Record" when writing.

Maine Electric Co., Portland, Me.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland, O.

Cranes (Traveling)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Boston Bridge Works, 47 Winter St., Boston, Mass.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wyckliffe, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Kratzer & Co., W. N., Pittsburg, Pa.
Obermayer Co., S., Cincinnati, Ohio.
Russel Wheel & Foundry Co. Detroit, Mich.
Terry & Tench, New York.
Whitehead & Kales Iron Works, Detroit, Mich.
Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland, O.

Cranes (Wrecking)

Bucyrus Co., So. Milwaukee, Wis.

Crayons (Marking)

Dixon Crucible Co., Jos., Jersey City, N. J.
Zelnicker Supply Co., Walter A., 406 No. South St., St.
Louis, Mo.

Creosote

Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
Kettle River Quarries Co., Minneapolis, Minn.
Southern Wood Preserving Co., Atlanta, Ga.
Wyckoff Pipe & Creosoting Co., 50 Church St., New
York.

Creosoted Blocks, Lumber, Etc.

American Creosote Works, New Orleans, La.
American Creosoting Co., 95 Liberty St., New York.
Barber Asphalt Paving Co., Maurer, N. J.
Gulfport Creosoting Co., Gulfport, Miss.
Kettle River Quarries Co., Minneapolis, Minn.
Oregonia Bridge Co., Lebanon, Ohio.
Southern Wood Preserving Co., Atlanta, Ga.
U. S. Wood Preserving Co., 165 Broadway, N. Y.
Wyckoff Pipe & Creosoting Co., 50 Church St., New
York.

Creosoting

American Creosote Works, New Orleans, La.
Barber Asphalt Paving Co., Maurer, N. J.
Gulfport Creosoting Co., Gulfport, Miss.
Kettle River Quarries Co., Minneapolis, Minn.
Southern Wood Preserving Co., Atlanta, Ga.
U. S. Wood Preserving Co., 165 Broadway, New York.
Wyckoff Pipe & Creosoting Co., 50 Church St., New
York.

Creosoting Cylinders

Allis-Chambers Co., Milwaukee, Wis.
Graver Tank Works, Wm., East Chicago, Ill.
Petroleum Iron Works Co., Sharon, Pa.
Power & Mining Machinery Co., Milwaukee, Wis.

Crossings, Railway (See Frogs and Switches)

Crusher Parts and Repairs

Austin-Western Co., Ltd., Chicago, Ill.
Barron & Cole Co., 127 Franklin St., New York.
Bartlett & Snow Co., C. O., Cleveland, O.

Mention "Engineering Record" when writing.

Coldwell-Wilcox Co., Newburgh, N. Y.
 International Steam Pump Co., 115 Broadway, New York.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 National Mixer Co., Powers Bldg., Rochester, N. Y.
 Pennsylvania Steel Co., Steelton, Pa.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Raymond Bros.' Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Taylor Iron & Steel Co., High Bridge, N. J.

Crushers (Gyratory)

Abenague Machine Works, Westminster Station, Vt.
 Allis-Chalmers Co., Milwaukee, Wis.
 Austin Mfg. Co., Chicago, Ill.
 Austin-Western Co., Ltd., Chicago, Ill.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Eureka Stone & Ore Crusher Co., Cedar Rapids, Iowa.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.

Crushers (Jaw)

Abenague Machinery Works, Westminster Station, Vt.
 Allis-Chalmers Co., Milwaukee, Wis.
 Austin Mfg. Co., Chicago, Ill.
 Austin-Western Co., Ltd., Chicago, Ill.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
 Coldwell-Wilcox & Co., Newburgh, N. Y.
 Cresson Co., Geo. V., Allegheny Ave. West of 17th St., Philadelphia, Pa.
 Eureka Stone & Ore Crusher Co., Cedar Rapids, Iowa.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago.
 Good Roads Machinery Co., Kennet Square, Pa.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Kelly-Springfield Road Roller Co., Springfield, Ohio.
 Kent Mill Co., 170 Broadway, New York.
 Koehring Machine Co., Milwaukee, Wis.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Pennsylvania Steel Co., Steelton, Pa.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.
 Universal Road Machinery Co., 120 Liberty St., New York.
 Williams' Patent Crusher & Pulverizer Co., Chicago, Ill.

Crushing Rolls

Allis-Chalmers Co., Milwaukee, Wis.
 American Pulverizer Co., St. Louis, Mo.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Conveying Weigher Co., 92 West St., New York.

Mention "Engineering Record" when writing.

Cresson Co., Geo. V., Allegheny Ave., West of 17th St., Philadelphia, Pa.
 Hunt Co., C. W., West New Brighton, N. Y.
 Kent Mill Co., 170 Broadway, New York.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Pennsylvania Steel Co., Steelton, Pa.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Raymond Bros.' Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.
 Sturtevant Mill Co., Harrison Sq., Boston Mass.
 Troy Public Works Co., Utica, N. Y.
 Vulcan Iron Works, Wilkes-Barre, Pa.

Culverts (See Also Pipe, Vitrified, Etc.)

American Spiral Pipe Works, Chicago, Ill.
 Ash, John Wm., Austell, Ga.
 Berger Mfg. Co., Canton, O.
 Blaw Collapsible Steel Centering Co., 710 Westinghouse Bldg., Pittsburgh, Pa.
 Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
 Clinton Bridge & Iron Works, Clinton, Iowa.
 Evens & Howard Fire Brick Co., St. Louis, Mo.
 Lock Joint Pipe Co., 165 Broadway, New York.
 McWane Pipe Works, 220 Broadway, New York.

Cupolas

Obermayer Co., S., Cincinnati, Ohio.
 Pyro Clay Product Co., Oak Hill, Ohio.

Curb Boxes (Meter)

Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
 McWane Pipe Works, 220 Broadway, New York.

Curb (Steel)

Berger Mfg. Co., Canton, Ohio.
 Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
 Kratzer & Co., W. N., Pittsburg, Pa.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.

Cutters (Rod and Bolt)

Hayward & Co., S. F., 39 Park Pl., New York.
 Pels & Co., Henry, 90 West St., New York.

Cutting (Oxy-Acetylene Process)

Davis-Bournonville Co., 90 West St., New York.

Cylinders

Graver Tank Works, William, East Chicago, Ind.
 Janney, Steinmetz & Co., Philadelphia, Pa.
 Manitowoc Boiler Works Co., Manitowoc, Wis.
 Mitchell & Tappen, 122 Liberty St., New York.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Scaife & Sons Co., Wm. B., Pittsburg, Pa.

Dams (Concrete)

Aberthaw Construction Co., Boston, Mass.
 Ambursen Hydraulic Constr. Co., 176 Federal St., Boston.
 American Pipe & Construction Co., Philadelphia, Pa.
 Blome Co., R. S., Unity Bldg., Chicago, Ill.
 Carey Construction Co., 211 Lenox Bldg., Cleveland, O.
 Concrete Steel Engineering Co., Park Row Bldg., New York.
 Cuzzo, Donato, Park Row Bldg., New York.
 Foundation Co., 115 Broadway, New York.
 United Paving Co., Atlantic City, N. J.
 White & Co., J. G., 43-49 Exchange Pl., New York.
 Wardwell, Frederick S., Stamford, Conn.

Mention "Engineering Record" when writing.

Derails

Wiener Co., Ernst, 470 Hudson Terminal, New York.

Derrick Crabs

American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 383 Atlantic Ave., Boston, Mass.
Browning Mfg. Co., Cleveland, Ohio.
Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Dake Engine Co., Grand Haven, Mich.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Maine Electric Co., Portland, Me.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
Pittsburg Block Mfg. Co., 818 South Ave., Pittsburg, Pa.
Terry & Tench, New York.

Derrick Irons

American Hoist & Derrick Co., St. Paul, Minn.
Atkinson, Wm. H. Co., Hudson River at 7th St., Hoboken, N. J.
Berlin Construction Co., Berlin, Conn.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Browning Mfg. Co., Cleveland, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Flory Mfg. Co., S., Bangor, Pa.
Hayward Co., 50 Church St., New York.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Maine Electric Co., Portland, Me.
Marine Metal & Supply Co., 167 South St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
Monighan Machine Co., 2016 & 2030 Carroll Ave., Chicago.
Patterson Co., W. W., Pittsburg, Pa.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Terry & Tench, New York.
Union Iron Works, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago.

Derricks and Derrick Fittings

American Bridge Co., 30 Church St., New York.
American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Browning Mfg. Co., Cleveland, Ohio.
Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Des Moines Bridge & Iron Co., Des Moines, Iowa.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Flory Mfg. Co., S., Bangor, Pa.
Hayward Co., 50 Church St., New York.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Maine Electric Co., Portland, Me.
Marine Metal & Supply Co., 167 South St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
New York Cableway & Engineering Co., 2 Rector St., New York.

Mention "Engineering Record" when writing.

Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
 Patterson Co., W. W., Pittsburg, Pa.
 Pittsburg Block & Mfg. Co., 818 South St., Pittsburg, Pa.
 Russel Wheel & Foundry Co., Detroit, Mich.
 Stuebner Iron Works, J. L., Foot of 12th st., Long
 Island City, N. Y.
 Terry & Tench, New York.
 Union Iron Works, Hoboken, N. J.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.
 Wickes Bros., 90 West St., New York.
 Williamson Bros.' Co., Aramingo & Cumberland Aves.,
 Philadelphia, Pa.
 Zelnicker Supply Co., Walter A., 406 Fourth Ave., St.
 Louis, Mo.

Derricks (Pile Driving)

American Hoist & Derrick Co., St. Paul, Minn.
 Channon Co., H., Chicago, Ill.
 Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Lidgerwood Mfg. Co., 96 Liberty St., New York.
 MacArthur Concrete Pile Co., 11 Pine St., New York.
 Maine Electric Co., Portland, Me.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 New York Cableway & Engineering Co., 2 Rector St.,
 New York.
 Terry & Tench, New York.
 Union Iron Works, Hoboken, N. J.
 United States Equipment Co., 1201 Fisher Bldg., Chi-
 cago, Ill.
 Vulcan Iron Works, Chicago, Ill.
 Williamson Bros.' Co., Aramingo & Cumberland Aves.,
 Philadelphia, Pa.

Derricks (Steam)

American Hoist & Derrick Co., St. Paul, Minn.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Cleveland Crane & Engineering Co., Wickliffe, Ohio.
 Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Inter-State Equipment & Engineering Co., 1775 Old Col-
 ony Bldg., Chicago, Ill.
 Leschen & Sons Rope Co., A., St. Louis, Mo.
 Lidgerwood Mfg. Co., 96 Liberty St., New York.
 Maine Electric Co., Portland, Me.
 Marine Metal & Supply Co., 167 South St., New York.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Terry & Tench, New York.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.
 Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland.
 Williamson Bros.' Co., Aramingo Ave. & Cumberland,
 Philadelphia, Pa.

Dinkeys (See Locomotives, Industrial)

Dipper Teeth

Taylor Iron & Steel Co., High Bridge, N. J.

Distributors (Oil and Tar)

American Tar Co., Boston, Mass.

Ditching Machinery, Steam Shovels, Etc. (See Excavating Machinery, Also Trench Excavating Machinery)

Mention "Engineering Record" when writing.

Doors (Rolling)

Berger Mfg. Co., Canton, Ohio.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Milliken Bros., Milliken, N. Y.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Whitehead-Kales Iron Works, Detroit, Mich.
Wilson, J. G. Mfg. Co., New York.

Drafting Instruments and Supplies (See Engineers' and Surveyors' Instruments and Supplies)

Dredging Sleeves

Revere Rubber Co., Boston, Mass.
Walker, John L., Mobile, Ala.

Dredging Machinery

American Rock Cutter Co., 92 Broadway, New York.
Atkinson, Wm. H. Co., Hudson River at 7th St., Hobo-
ken, N. J.
Atlantic Gulf & Pacific Co., Park Row Bldg., New York.
Bellefontaine Foundry Machine Co., Bellefontaine, Ohio.
Bucyrus Co., So. Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave., West of 17th St.,
Philadelphia, Pa.
Ellicott Machine Co., Bush & Severn Sts., Baltimore, Md.
Erie Pump & Engine Works, Erie, Pa.
Hayward Co., 50 Church St., New York.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Lake Erie Engineering Works, Buffalo, N. Y.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Marion Steam Shovel Co., Marion, Ohio.
Morris Machine Works, Baldwinsville, N. Y.
Osgood Dredging Co., 51 State St., Albany, N. Y.
Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
Williamson Bros.' Co., Aramingo & Cumberland Aves.,
Philadelphia, Pa.

Drift Pins

Cleveland City Forge & Iron Co., Cleveland, Ohio.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.
Patterson Co., W. W., Pittsburg, Pa.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Pittsburg Mfg. Co., Pittsburg, Pa.
Terry & Tench, New York.

Drilling Machines (Blast-Hole)

Channon Co., H., Chicago, Ill.
Cyclone Drill Co., Orrville, Ohio.
Keystone Driller Co., Beaver Falls, Pa.
Star Drilling Machine Co., Akron, Ohio.

Drilling Rope

American Mfg. Co., 65 Wall St., New York.
Cyclone Drill Co., Orrville, Ohio.
Leschen & Sons Rope Co., A., St. Louis, Mo.
New York Blasting Supply Co., 11 Broadway, New York.
Roebeling's Sons Co., Jno. A., Trenton, N. J.
Trenton Iron Co., Trenton, N. J.

Drills

Barron & Cole Co., 127 Franklin St., N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Channon Co., H., Chicago, Ill.

Mention "Engineering Record" when writing.

Fairbanks Co., New York & Chicago.
Ingersoll-Rand Co., 11 Broadway, New York.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Keystone Driller Co., Beaver Falls, Pa.
Marine Metal & Supply Co., 167 South St., New York.
Star Expansion Bolt Co., 147-149 Cedar St., New York.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wood Drill Works, Paterson, N. J.

Drills (Diamond Core)

Cyclone Drill Co., Orrville, Ohio.
Ingersoll-Rand Co., 11 Broadway, New York.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Terry Core Drill Co., 50 Church St., New York.
Wickes Bros., 90 West St., New York.

Drills (Diamondless Core)

Cyclone Drill Co., Orrville, Ohio.
Ingersoll-Rand Co., 11 Broadway, New York.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Terry Core Drill Co., 50 Church St., New York.

Drills (Electric)

Cyclone Drill Co., Orrville, Ohio.
Ingersoll-Rand Co., 11 Broadway, New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Obermayer Co., S., Cincinnati, Ohio.

Drills (Pneumatic)

Independent Pneumatic Tool Co., 1307 Michigan Ave., Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Drills (Rock)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Fairbanks, Morse & Co., Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Marine Metal & Supply Co., 167 South St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
McKiernan Drill Co., 115 Broadway, New York.
New York Blasting Supply Co., 11 Broadway, New York.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wickes Bros., 90 West St., New York.
Wood Drill Works, Paterson, N. J.

Drills (Electric-Air, Rock)

Barron & Cole Co., 127 Franklin St., New York.
Cyclone Drill Co., Orrville, Ohio.
Ingersoll-Rand Co., 11 Broadway, New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.

Drums (Hoisting)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Barron & Cole Co., 127 Franklin St., New York.

Mention "Engineering Record" when writing.

Builders' Material Supply Co., 301-303 Scarritt Bldg.,
 Kansas City, Mo.
 Chain Belt Co., Milwaukee, Wis.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Ellicott Machine Co., Bush & 7th Sts., Baltimore, Md.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Longenecker, Chas. W. & Co., 150 Nassau St., New
 York.
 Maine Electric Co., Portland, Me.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Monighan Machine Co., 2016-2030 Carroll Ave., Chicago.
 New York Cableway & Engineering Co., 2 Rector St.,
 New York.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Williamson Bros. Co., Aramingo & Cumberland Aves.,
 Philadelphia, Pa.

Dryers (Cement, Asphalt and Sand)

American Process Co., 68 William St., New York.
 Atlas Dryer Co., Cleveland, Ohio.
 Bartlett, C. O., & Snow Co., Cleveland, Ohio.
 Cummer, F. D., & Son, 413 Acade, Cleveland, Ohio.
 Fuller Engineering Co., Allentown, Pa.
 Iroquois Iron Works Buffalo, N. Y.
 Kent Mill Co., 170 Broadway, New York.
 Manitowoc Boiler Works Co., Manitowoc, Wis.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Ruggles-Coles Engineering Co., 50 Church St., New
 York.
 Sharon Boiler Works, Florida St., Sharon, Pa.

Drying Apparatus (Hot-Blast)

American Blower Co., Detroit, Mich.
 American Process Co., 68 William St., New York.
 Atlas Dryer Co., Cleveland, Ohio.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Cummer & Son Co., F. D., 413 Arcade, Cleveland, Ohio.
 Green Fuel Economizer Co., Mattewan, N. Y.
 New York Blower Co., Chicago, Ill.
 Ruggles-Coles Engineering Co., 50 Church St., New
 York.
 Sturtevant Co., B. F., Hyde Park, Mass.

Dump Boxes (See Boxes, Dump)

Dump Wagons (See Wagons, Dumping)

Dust Collectors

American Blower Co., Detroit, Mich.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 New York Blower Co., Chicago, Ill.
 Raymond Bros., Impact Pulverizer Co., 1500 Harrison St.,
 Chicago, Ill.
 Sturtevant Co., B. F., Hyde Park, Mass.

Dynamite (See Also Explosives)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Du Pont de Nemours, E. I., Powder Co., Wilmington,
 Del.
 Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Keystone Powder Mfg. Co., Emporium, Pa.
 National Powder Co., 200 5th Ave., New York.
 New York Blasting & Supply Co., 11 B'way, New York.
 Sinnamahoning Powder Co., Emporium, Pa.

Mention "Engineering Record" when writing.

Dynamos

Abenague Machine Works, Westminster Station, Vt.
Burke Electric Co., Erie, Pa.
De Laval Steam Turbine Co., Trenton, N. J.
D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Ridgway Dynamo & Engine Co., Ridgway, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wickes Bros., 90 West St., New York.

Economizers (See Fuel Economizers)

Westinghouse Machine Co., Pittsburg, Pa.

Ejectors

American Injector Co., Detroit, Mich.
Lunkenheimer Co., Cincinnati, Ohio.
Merritt & Co., 125 Front St., Camden, N. J.
Shone Co., 861 Blackhawk St., Chicago, Ill.

Electric Bells

Ostrander Co., W. R., 22 Dey St., New York.

Electric Trucks

Hunt Co., C. W., West New Brighton, N. Y.
Maine Electric Co., Portland, Me.
Studebaker Bros. Mfg. Co., South Bend, Ind.
Westinghouse Machine Co., Pittsburg, Pa.

Electrical Supplies

General Electric Co., Schenectady, N. Y.
Minwax Co., 1123 Broadway, New York.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Elevator Inclosures

Milliken Bros., Milliken, N. Y.
Reedy Co., H. J., Cincinnati, Ohio.
Schreiber & Sons Co., L., Cincinnati, Ohio.

Elevator Repairs

Reedy Co., H. J., Cincinnati, Ohio.

Elevators

Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Co., Kansas City, Mo.
Eureka Stone & Ore Crushing Co., Cedar Rapids, Iowa.
Hunt Co., C. W., West New Brighton, N. Y.
Minneapolis Steel Machinery Co., 2854 Minnehaha Ave.,
Minneapolis, Minn.
Reedy, H. J., Co., Cincinnati, Ohio.
Russel Wheel & Foundry Co., Detroit, Mich.

Elevators (Bucket)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Austin Mfg. Co., Chicago, Ill.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Chain Belt Co., Milwaukee, Wis.
Conveying Weigher Co., 92 West St., New York.
Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.

Mention "Engineering Record" when writing.

Power & Mining Machinery Co., Milwaukee, Wis.
 Ransom Concrete Machinery Co., Dunellen, N. J.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Stephens-Adamson Mfg. Co., Aurora, Ill.
 Sturtevant Mill Co. Harrison Sq., Boston, Mass.
 Vulcan Iron Works, Wilkes-Barre, Pa.
 Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Elevators (Builders')

American Hoist & Derrick Co., St. Paul, Minn.
 Chain Belt Co., Milwaukee, Wis.
 Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
 Insley Mfg. Co., Indianapolis, Ind.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
 Monighan Machine Co., 2016-2030 Carroll Ave., Chicago.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 United States Equipment Co., 1201 Fisher Bldg., Chicago Ill.

Engineers and Contractors

Aberthaw Construction Co., Boston, Mass.
 Albright & Mebus, Land Title Bldg., Philadelphia, Pa.
 Alvord, Jno. W., 127 Hartford Bldg., Chicago, Ill.
 American Bridge Co. 30 Church St., N. Y.
 American Concrete Steel Co., Newark, N. J.
 American District Steam Co., Lockport, N. Y.
 American Engineering & Construction Co., 789-791-793 Drexel Bldg., Philadelphia, Pa.
 American Pipe & Construction Co., 112 No. Broad St., Philadelphia, Pa.
 Arnold Co., 181 La Salle St., Chicago, Ill.
 Ash, John Wm., Austell, Ga.
 Atlas Dryer Co., Cleveland, Ohio.
 Barbour, F. A., Tremont Bldg., Boston, Mass.
 Barrus, G. H. (room 301), 22 Pemberton St., Boston.
 Berlin Construction Co., Berlin, Conn.
 Breite, W. W., 702 Clunie Bldg., San Francisco, Cal.
 Brill & Gardner, 1134 Marquette Bldg., Chicago, Ill.
 Buff & Buff Mfg. Co., Boston, Mass.
 Burgess, Kimberly & Long, Columbus, Ohio.
 Bush, H. M., 69 No. 4th St., Columbus, Ohio.
 Byllesby & Co., H. M., 218 La Salle St., Chicago, Ill.
 Cameron Septic Tank Co., 352 and 356 Monadnock Block, Chicago, Ill.
 Carey Construction Co., 211 Lennox Bldg., Cleveland, O.
 Central States Bridge Co., Indianapolis, Ind.
 City Wastes Disposal Co., 156 5th Ave., New York.
 Clinton Bridge & Iron Works, Clinton, Iowa.
 Concrete Steel Co., 29 Broadway, N. Y.
 Conard, Wm. R., 322 High St., Burlington, N. J.
 Conveying Weigher Co. 92 West St., New York.
 Cresson Co., Geo. V., Allegheny Ave., West of 17th St., Philadelphia, Pa.
 Cummer & Son Co., F. D., 413 Arcade, Cleveland, Ohio.
 Darrach-Gobrecht, Chas., Washington, D. C.
 Dawley, Edwin P., Banigan Bldg., Providence, R. I.
 Dodge & Day, Philadelphia, Pa.
 D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
 Elliott, J. W., 17 Adsit Pl., Burlington, Vt.
 Excelsior Wooden Pipe Co., 916 Balboa Bldg., San Francisco, Cal.
 Fanning, J. T., 330 Hennepin Ave., Minneapolis, Minn.
 Farrington, Harvey, 45 Broadway, New York.

Mention "Engineering Record" when writing.

Ferro-Concrete Construction Co., Richmond & Harriet
 Sts., Cincinnati, Ohio.
 Fidelity Engineering & Inspecting Co., 30 Church St.,
 New York.
 Foundation Co., 115 Broadway, New York.
 Field, Wm. P., Prudential Bldg., Newark, N. J.
 Fuertes, James H., 140 Nassau St., New York.
 Fuller Engineering Co., Allentown, Pa.
 Fuller, Frank L., 12 Pearl St., Boston, Mass.
 Gray, Samuel M., Weybosset St., Providence, R. I.
 Grunsky, C. E., 45 Broadway, New York.
 Hallett, Nelson A., 1 Ashburton Place, Boston, Mass.
 Harrison Engineering Co., New York.
 Hazelhurst & Anderson, Candler Bldg., Atlanta, Ga.
 Hazen, Allen, 103 Park Ave., New York.
 Hepp, Augustus C., 143 Liberty St., New York.
 Hering & Fuller, 170 Broadway, New York.
 Hill Jr., Nicholas S., 100 William St., New York.
 Hill, W. R., 53 State St., Albany, N. Y.
 Hirschburg-Williams-Washburn Co., 410 Stephenson
 Bldg., Milwaukee, Wis.
 Hogg, J. B., 828 Park Bldg., Pittsburg, Pa.
 Hydro Bar Waterproofing Co., New York.
 Industrial News Bureau, Ithaca, N. Y.
 Iowa Engineering Co., Clinton, Iowa.
 Kidde, Walter, 140 Cedar St., New York.
 Kiersted, Wynkoop, 58 Waterworks Bldg., Kansas City.
 Knight & Hopkins, Rome, N. Y.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Leavitt, Jr., Chas. W., 220 Broadway, New York.
 Lederle & Provost, 39-41 W. 38th St., New York.
 Ley & Co., Fred T., 29 Broadway, New York.
 Lyndon, Lamar, 2 Rector St., New York.
 MacArthur Concrete Pile Co., 11 Pine St., New York.
 Main, Charles T., 201 Devonshire St., Boston, Mass.
 Maine Electric Co., Portland, Me.
 Maury, Dabney H., 129 N. Jefferson Ave., Peoria, Ill.
 Meehan & Sons, Thos., Mt. Airy, Philadelphia Pa.
 Metcalf & Luddy, 14 Beacon St., Boston, Mass.
 Meyer, Jr., Henry C., 1 Madison Ave., New York.
 Milliken Bros., Milliken, N. Y.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave.,
 Minneapolis, Minn.
 Morrison, H. H., Board of Education Bldg., St. Louis.
 Morse, W. F., 111 Broadway, New York.
 Kleinschmidt, Henry S., Salt Lake City, Utah.
 New York Blower Co., Chicago, Ill.
 O'Rourke Engineering & Construction Co., New York.
 Owen, James, 196 Market St., Newark, N. J.
 Penn Bridge Co., Beaver Falls, Pa.
 Phillips, Richard H., Security Bldg., St. Louis, Mo.
 Potter, Alexander, 114 Liberty St., New York.
 Potts, Clyde, 30 Church St., New York.
 Power Specialty Co., 111 Broadway, New York.
 Raymond Concrete Pile Co., New York & Chicago.
 Riggs & Sherman Co., 613, The Nasby, Toledo, Ohio.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Rogers & Latimer, 5 East 42d St., New York.
 Runyon & Carey, 47 West 34th St., New York.
 Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block,
 Chicago, Ill.
 Shankland, E. C. & R. M., The Rookery, Chicago, Ill.
 Shoemaker & Co., Lewis F., Harrison Bldg., Philadelphia.
 Shone Co., 861 Blackhawk St., Chicago, Ill.
 Skene, Frederick, 149 Broadway, New York.
 Snare & Triest, 143 Liberty St., New York.

Mention "Engineering Record" when writing.

SooySmith, Charles, 71 Broadway, New York.
 Stone & Webster Engineering Corporation, Stone & Webster Bldg., Boston, Mass.
 Terry & Tench, New York.
 Thorpe, Lewis D., 201 Devonshire St., Boston, Mass.
 Tribus & Massa, 86 Warren St., New York.
 Uffendell, Gibbons W., 234 Michigan Ave., Chicago, Ill.
 Underpinning Co., 290 Broadway, New York.
 United Paving Co., Atlantic City, N. J.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Waddell & Harrington, 1012 Baltimore Ave., Kansas City, Mo.
 Wales, F. C., 8 Beacon St., Boston, Mass.
 Wallace & Co., Jos. H., Temple Court Bldg., New York.
 Wardwell, Frederick S., Stamford, Conn.
 Webster, A. L., 43-49 Exchange Pl., New York.
 Weston, Edmond B., 86 Weybosset St., Providence, R. I.
 Weston, Robert Spurr, 14 Beacon St., Boston, Mass.
 Whipple, Geo. C., 103 Park Ave., New York.
 White & Co., J. G., 43-49 Exchange Pl., New York.
 Whitehead & Kales Iron Works, Beecher Ave. & M. C. R. R., Detroit, Mich.
 Wilkins Co., William G., Westinghouse Bldg., Pittsburgh, Pa.
 Wilson, Harris & Richards, Drexel Bldg., Phila., Pa.
 Wingfield, Nisbet, 811 Ellis St., Augusta, Ga.
 Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg., Milwaukee, Wis.
 Wise & Watson, 34 Bloomfield Ave., Passaic, N. J.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Engineers' and Surveyors' Instruments and Supplies

Ainsworth & Son., Wm., Denver, Col.
 Aloe Co., A. S., 313 Olive St., St. Louis, Mo.
 Architects' & Engineers' Supply Co., 1010 Grand Ave., Kansas City, Mo.
 Bausch & Lomb Optical Co., Rochester, N. Y.
 Berger & Sons, C. L., Boston, Mass.
 Buff & Buff Mfg. Co., Boston, Mass.
 French, Arthur W., Worcester Polytechnic Institute, Worcester, Mass.
 Geier & Bluhm, Troy, N. Y.
 Iszard-Warren Co., N. Fourth St., Philadelphia, Pa.
 Keuffel & Esser Co., Hoboken, N. J.
 Kolesch & Co., 138 Fulton St., New York.
 Lufkin Rule Co., Saginaw, Mich.
 St. George, Henry V., Inc., 8-10 Grand St., New York.
 U. S. Wind Engine & Pump Co., Batavia, Ill.
 Wiebusch & Hilger, 106-110 Lafayette St., New York.
 Williams, Brown & Earle, 916 Chestnut St., Phila., Pa.

Engines (Blowing)

Allis-Chalmers Co., Milwaukee, Wis.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Lake Erie Engineering Works, Buffalo, N. Y.
 McDowell & Co., Grant & Western Aves., Allegheny, Pa.
 Murray Iron Works Co., Burlington, Iowa.
 Platt Iron Works Co., Dayton, Ohio.
 Southwark Foundry & Machine Co., Phila., Pa.
 Westinghouse Machine Co., Pittsburgh, Pa.

Engines (Compressed Air)

Abenague Machine Works, Westminster Station, Vt.
 Allis-Chalmers Co., Milwaukee, Wis.

Mention "Engineering Record" when writing.

American Well Works, Aurora, Ill.
 Dake Engine Co., Grand Haven, Mich.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Ingersoll-Rand Co., 11 Broadway, New York.
 International Steam Pump Co., 115 Broadway, New York.
 McDowell & Co., Grant & Western Aves., Allegheny, Pa.
 Murray Iron Works Co., Burlington, Iowa.
 Southwark Foundry & Machine Co., Phila., Pa.
 Westinghouse Machine Co., Pittsburg, Pa.

Engines (Corliss)

Allis-Chalmers Co., Milwaukee, Wis.
 Lake Erie Engineering Works, Buffalo, N. Y.
 McDowell & Co., Grant & Western Aves., Allegheny, Pa.
 Marine Metal & Supply Co., 167 South St., New York.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
 Murray Iron Works Co., Burlington, Iowa.
 Southwark Foundry & Machine Co., Philadelphia, Pa.
 Westinghouse Machine Co., Pittsburg, Pa.
 Wickes Bros., 90 West St., New York.

Engines (Deep-Well Pumping)

Advance Pump & Compressor Co., Battle Creek, Mich.
 American Well Works, Aurora, Ill.
 Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Builders' Material Supply Co., 301-305 Scarritt Bldg., Kansas City, Mo.
 Channon Co., H., Chicago, Ill.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Epping-Carpenter Co., Pittsburg, Pa.
 Foos Gas Engine Co., Springfield, Ohio.
 International Steam Pump Co., 115 Broadway, New York.
 Keystone Driller Co., Beaver Falls, Pa.
 Mietz, August, 128-138 Mott St., New York.
 National Meter Co., 84 Chambers St., New York.
 Platt Iron Works Co., Dayton, Ohio.
 Rider-Ericsson Engine Co., 35 Warren St., New York.
 Sheffield Gas Power Co., Kansas City, Mo.
 Union Steam Pump Co., Battle Creek, Mich.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Westinghouse Machine Co., Pittsburg, Pa.

Engines (Gas, Gasoline, Oil)

Abenague Machine Works, Westminster Station, Vt.
 Allis-Chalmers Co., Milwaukee, Wis.
 Buckeye Engine Co., Salem, Ohio.
 Channon Co., H., Chicago, Ill.
 Chicago Scale Co., 1021 Jackson Boulevard, Chicago, Ill.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Dunning, W. D., Syracuse, N. Y.
 Fairbanks Co., New York & Chicago.
 Fairbanks, Morse & Co., Chicago, Ill.
 Fernyak & Stavenik Machine Co., Mansfield, Ohio.
 Flint & Walling Mfg. Co., Kendallville, Ind.
 Foos Gas Engine Co., Springfield, Ohio.
 General Electric Co., Schenectady, N. Y.
 Hush, H. J., 39-41 Cortlandt St., New York.
 Lake Erie Engineering Works, Cor. of Chicago & Perry Sts., Buffalo, N. Y.
 McCoy Co., Henry J., 65 & 67 Dey St., New York.
 McDowell & Co., Grant & Western Aves., Allegheny, Pa.

Mention "Engineering Record" when writing.

Mietz, August, 128-138 Mott St., New York.
 Minneapolis Steel & Machinery Co. 2854 Minnehaha Ave.,
 Minneapolis, Minn.
 National Meter Co., 84 Chambers St., New York.
 Parker, A. A., Waterford, N. Y.
 Power & Mining Mchy. Co., Milwaukee, Wis.
 Sheffield Gas Power Co., Kansas City, Mo.
 Standard Scale & Supply Co., 50-52 So. Canal St., Chi-
 cago, Ill.
 Struthers-Wells Co., Warren, Pa.
 Troy Public Works Co., Utica, N. Y.
 Westinghouse Machine Co., Pittsburg, Pa.
 Wickes Bros., 90 West St., New York.

Engines (High-Duty Pumping)

Abenague Machine Works, Westminster Station, Vt.
 Allis-Chalmers Co., Milwaukee, Wis.
 De Laval Steam Turbine Co., Trenton, N. J.
 D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
 Dow Pumping Engine Co., Geo. E., 179 First St., San
 Francisco, Cal.
 Epping-Carpenter Co., Pittsburg, Pa.
 International Steam Pump Co., 115 Broadway, New York.
 Lake Erie Engineering Works, Cor. of Chicago & Perry
 Sts., Buffalo, N. Y.
 McCoy Co., Henry J., 65 & 67 Dey St., New York.
 Mietz, August, 128-138 Mott St., New York.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha
 Ave., Minneapolis, Minn.
 Murray Iron Works Co., Burlington, Iowa.
 National Meter Co., 84 Chambers St., New York.
 Platt Iron Works Co., Dayton, Ohio.
 Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
 Southwark Foundry & Machine Co., Philadelphia, Pa.
 Westinghouse Machine Co., Pittsburg, Pa.

Engines (Hoisting)

Abenague Machine Works, Westminster Station, Vt.
 Allis-Chalmers Co., Milwaukee, Wis.
 American Hoist & Derrick Co., St. Paul, Minn.
 Barron & Cole Co., 127 Franklin St., New York.
 Bellefontaine F'dry & Machine Co., Bellefontaine, O.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Browning Mfg. Co., Cleveland, Ohio.
 Channon Co., H., Chicago, Ill.
 Clyde Iron Works, Duluth, Minn.
 Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
 Dake Engine Co., Grand Haven, Mich.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Ellicott Machine Co., Bush & Severn Sts., Baltimore.
 Fairbanks Co., New York & Chicago.
 Fairbanks, Morse & Co., Chicago, Ill.
 Flory Mfg. Co., S., Bangor, Pa.
 Foos Gas Engine Co., Springfield, Ohio.
 Haiss Mfg. Co., Geo., New York.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Hough Co., Wm. B., Monadnock Block, Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Inter-State Equipment & Engineering Co., 1775 Old Col-
 ony Bldg., Chicago, Ill.
 Lidgerwood Mfg. Co., 96 Liberty St., New York.
 Maine Electric Co., Portland, Me.
 Marine Metal & Supply Co., 167 South St., New York.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 65 and 67 Dey St., New York.
 McDowell & Co., Grant & Western Aves., Allegheny, Pa.

Mention "Engineering Record" when writing.

Mead-Morrison Mfg. Co., Cambridge, Mass.
 Mietz, August, 128-138 Mott St., New York.
 Monaghan Machine Co., 2016 and 2030 Carroll Ave., Chicago, Ill.
 New York Cableway & Engineering Co., 2 Rector St., New York.
 Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Russel Wheel & Foundry Co., Detroit, Mich.
 Sheffield Gas Power Co., Kansas City, Mo.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Vulcan Iron Works, Wilkes-Barre, Pa.
 Westinghouse Machine Co., Pittsburg, Pa.
 Wickes Bros., 90 West St., New York.
 Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland, O.
 Williamson Bros. Co., Philadelphia, Pa.

Engines (Hot Air)

Allis-Chalmers Co., Milwaukee, Wis.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Rider-Ericsson Engine Co., 35 Warren St., New York.
 Williamson Bros. Co., Aramingo & Cumberland Aves., Philadelphia, Pa.

Engines (Incline Cableway)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Hunt Co., C. W., West New Brighton, N. Y.
 Lidgerwood Mfg. Co., 96 Liberty St., New York.
 New York Cableway & Engineering Co., 2 Rector St., New York.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Vulcan Iron Works, Wilkes-Barre, Pa.

Engines (Oil)

American Well Works, Aurora, Ill.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Fairbanks, Morse & Co., Chicago, Ill.
 Foos Gas Engine Co., Springfield, Ohio.
 International Steam Pump Co., 115 B'way, New York.
 Mietz, August, 128-138 Mott St., New York.
 Sheffield Gas Power Co., Kansas City, Mo.
 Troy Public Works Co., Utica, N. Y.
 Westinghouse Machine Co., Pittsburg, Pa.

Engines (Portable)

Abenague Machine Works, Westminster Station, Vt.
 Avery Co., 984 Iowa St., Peoria, Ill.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Channon Co., H., Chicago, Ill.
 Fairbanks Co., New York & Chicago.
 Fairbanks, Morse & Co., Chicago, Ill.
 Flory Mfg. Co., S., Bangor, Pa.
 Foos Gas Engine Co., Springfield, Ohio.
 Hush, H. J., 39-41 Cortlandt St., New York.
 Leffel & Co., Jas., Springfield, Ohio.
 McDowell & Co., Grant & Western, Allegheny, Pa.
 Mietz, August, 128-138 Mott St., New York.
 Morris Machine Works, Baldwinsville, N. Y.
 Murray Iron Works Co., Burlington, Iowa.
 Sheffield Gas Power Co., Kansas City, Mo.
 Westinghouse Machine Co., Pittsburg, Pa.

Mention "Engineering Record" when writing.

Engines (Steam)

Allis-Chalmers Co., Milwaukee, Wis.
American Blower Co., Detroit, Mich.
American Hoist & Derrick Co., St. Paul, Minn.
American Well Works, Aurora, Ill.
Avery Co., 984 Iowa St., Peoria, Ill.
Buckeye Engine Co., Salem, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Channon Co., H., Chicago, Ill.
Chicago Scale Co., 1021 Jackson Boulevard, Chicago, Ill.
Cyclone Drill Co., Orrville, Ohio.
D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
Erie Pump & Engine Works, Erie, Pa.
Fernyak & Stavenik Machine Co., Mansfield, Ohio.
Flory Mfg. Co., S., Bangor, Pa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
International Steam Pump Co., 115 Broadway, New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Lawrence Pump & Engine Co., Lawrence, Mass.
Leffel & Co., Jas., Springfield, Ohio.
McCoy Co., Henry J., 65-67 Dey St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
McIntosh, Seymour & Co., New York.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Morris Machine Works, Baldwinsville, N. Y.
Murray Iron Works Co., Burlington, Iowa.
Phoenix Iron Works Co., Meadville, Pa.
Ridgway Dynamo & Engine Co., Ridgway, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
Troy Public Works Co., Utica, N. Y.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.
Westinghouse Machine Co., East Pittsburg, Pa.

Engines (Traction)

Avery Co., 984 Iowa St., Peoria, Ill.
Buffalo-Pitts Co., Buffalo, N. Y.
Case Threshing Machine Co., J. I., Racine, Wis.
Farquhar Co., A. B., Box 704 York, Pa.
General Electric Co., Schenectady, N. Y.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Huber Mfg. Co., Dept. 13, Marion, Ohio.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
Mietz, August, 128-138 Mott St., New York.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.

Engines (Traction, Gasoline)

Abenague Machine Works, Westminster Station, Vt.
Avery Co., 984 Iowa St., Peoria, Ill.
Buffalo-Pitts Co., Buffalo, N. Y.
Cyclone Drill Co., Orrville, Ohio.
Mietz, August, 128-138 Mott St., New York.

Evaporators

Buffalo Forge Co., Buffalo, N. Y.
Morris Co., I. P., Philadelphia, Pa.
Williamson Bros. Co., Aramingo & Cumberland Aves., Philadelphia, Pa.

Mention "Engineering Record" when writing.

Evaporating Machinery

American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Williamson Bros. Co., Philadelphia, Pa.

Excavating Machinery

American Hoist & Derrick Co., St. Paul, Minn.
American Rockcutter Co., 32 Broadway, New York.
Atkinson Co., Wm. H., Hudson River at 7th St., Hoboken, N. J.
Atlantic Equipment Co., 30 Church St., New York.
Atlantic Gulf & Pacific Co., Park Row Bldg., New York.
Austin Drainage Excavator Co., F. C., Railway Exchange, Chicago.
Austin Mfg. Co., Chicago, Ill.
Austin-Western Co., Ltd., Chicago, Ill.
Avery Co., 984 Iowa St., Peoria, Ill.
Barron & Cole Co., 127 Franklin St., New York.
Bellefontaine Foundry & Machine Co., Bellefontaine, O.
Browning Mfg. Co., Cleveland, Ohio.
Buckeye Traction Ditcher Co., Findlay, Ohio.
Bucyrus Co., So. Milwaukee, Wis.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Carson Trench Machine Co., 16 Dorrance St., Boston.
Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Ellicott Machine Co., Bush & Severn Sts., Baltimore.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Flory Mfg. Co., S., Bangor, Pa.
Hadsell Engineering Co., Scranton, Pa.
Hayward Co., 50 Church St., New York.
Heyworth, James O., Harvester Bldg., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Koehring Machine Co., Milwaukee, Wis.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Maine Electric Co., Portland, Me.
Marion Steam Shovel Co., Marion, Ohio.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Monighan Machine Co., 2016-2030 Carroll Ave., Chicago.
Municipal Engineering & Contracting Co., 607-611 Ry. Exchange, Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
New York Cableway & Engineering Co., 2 Rector St., New York.
Osgood Dredge Co., 51 State St., Albany, N. Y.
Parsons Co., G. T., Newton, Iowa.
Souther & Co., John, Box 3118, Boston, Mass.
Southern Iron & Equipment Co., Atlanta, Ga.
St. Paul Ditcher & Carrier Co., St. Paul, Minn.
Taylor Iron & Steel Co., High Bridge, N. J.
Thew Automatic Shovel Co., Lorain, Ohio.
Trenton Iron Co., Trenton, N. J.
Troy Public Works Co., Utica, N. Y.
Union Iron Works, Lackawanna Siding, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Williams Co., G.H., 1513 Rockefeller Bldg., Cleveland, O.

Exhaust Heads

American Spiral Pipe Works, Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Burt Mfg. Co., Akron, Ohio.
Sturtevant Co., B. F., Hyde Park, Mass.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Mention "Engineering Record" when writing.

Expanded Metal (See Fireproof Construction)

Expansion Joints

Alberger Condenser Co., 140 Cedar St., New York.
Alberger Pump Co., 140 Cedar St., New York.
American District Steam Co., Lookport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Brohard Co., 3d St. & Lehigh Ave., Philadelphia, Pa.
Coldwell-Wilcox Co., Newburgh, N. Y.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Kellogg Co., M. W., 50 Church St., New York.
Minwax Co., 1123 Broadway, New York.
Power Specialty Co., 111 Broadway, New York.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Exploders

Bond Co., Harold L., 383 Atlantic Ave., Boston, Mass.
Du Pont de Nemours Powder Co., E. I., Wilmington, Del.
Keystone Powder Mfg. Co., Emporium, Pa.
National Powder Co., 200 Fifth Ave., New York.
New York Blasting Supply Co., 11 Broadway, New York.
Sinnamahoning Powder Co., Emporium, Pa.

Explosives

American Dynalite Co., Amherst, Ohio.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Channon Co., H., Chicago, Ill.
Du Pont de Nemours Powder Co., E. I., Wilmington, Del.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Keystone Powder Mfg. Co., Emporium, Pa.
National Powder Co., 200 Fifth Ave., New York.
New York Blasting Supply Co., 11 Broadway, New York.
Sinnamahoning Powder Co., Emporium, Pa.
Trojan Powder Co., 65 Pine St., New York.

Eyes (Wire Rope)

American Hoist & Derrick Co., St. Paul, Minn.
Broderick & Bascom Rope Co., St. Louis, Mo.
Channon Co., H., Chicago, Ill.
Roebbling's Sons Co., Jno. A., Trenton, N. J.

Fans

Allis-Chalmers Co., Milwaukee, Wis.
American Blower Co., Detroit, Mich.
Baldwin, Wm. J., World Bldg., New York.
Buffalo Forge Co., Buffalo, N. Y.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Exeter Machine Works, Exeter, N. H.
Green Fuel Economizer Co., Matteawan, N. Y.
New York Blower Co., Chicago, Ill.
Raymond Bros., Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.
Wing Mfg. Co., L. J., 90 West St., New York.

Fans (Electric)

American Blower Co., Detroit, Mich.
Baldwin, Wm. J., World Bldg., New York.
Buffalo Forge Co., Buffalo, N. Y.
Fairbanks, Morse & Co., Chicago, Ill.

Mention "Engineering Record" when writing.

General Electric Co., Schenectady, N. Y.
New York Blower Co., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
Wing Mfg. Co., L. J., 90 West St., New York.

Fasteners (Sheeting Roofing)

Star Expansion Bolt Co, 147-149 Cedar St., New York.

Feed-Water Heaters

Alberger Condenser Co., 140 Cedar St., New York.
Alberger Pump Co., 140 Cedar St., New York.
American Spiral Pipe Works, Chicago, Ill.
Booth, L. M., Co., 136 Liberty St., New York.
Buffalo Steam Pump Co., Buffalo, N. Y.
Green Fuel Economizer Co., Matteawan, N. Y.
International Steam Pump Co., 115 Broadway, New York.
Kewanee Boiler Co., Kewanee, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Mitchell & Tappen, 122 Liberty St., New York.
Murray Iron Works Co., Burlington, Iowa.
National Pipe Bending Co., New Haven, Conn.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Petroleum Iron Works Co., Sharon, Pa.
Phoenix Iron Works Co., Meadville, Pa.
Pittsburg Filter Mfg. Co., Pittsburg, Pa.
Platt Iron Works Co., Dayton, Ohio.
Sharon Boiler Works, Florida St., Sharon, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Wheeler, C. H., Mfg. Co., Philadelphia, Pa.
Williamson Bros. Co., Philadelphia, Pa.

Feed-Water Purifiers

Kellogg Co., M. W., 50 Church St., New York.
Lake Erie Engineering Works, Buffalo, N. Y.
New York Continental Jewell Filtration Co., 15 Broad St., New York.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Petroleum Iron Works Co., Sharon, Pa.
Platt Iron Works Co., Dayton, Ohio.
Pittsburg Filter Mfg. Co., Pittsburg, Pa.
Scaife & Sons Co., Wm. B., Pittsburg, Pa.

Felt (See Also Waterproofing)

Bird & Son, F. W., East Walpole, Mass.
Bird & Co., J. A. & W., 34 India St., Boston, Mass.
Minwax Co., 1123 Broadway, New York.
Texas Co., 17 Battery Pl., New York.

Fence, Railing and Posts

Anchor Post Iron Works, 15 Church St., New York.
Belmont Iron Works, Philadelphia, Pa.
Berlin Construction Co., Berlin, Conn.
Clinton Bridge & Iron Works, Clinton, Iowa.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Fox & Co., John, 253 Broadway, New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Milliken Bros., Milliken, N. Y.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.
Wyckoff Pipe & Creosoting Co., 50 Church St., N. Y.

Filing Cases (Metal)

Berger Mfg. Co., Canton, Ohio.

Mention "Engineering Record" when writing.

Filters (Feed Water)

Booth, L. M., Co., 136 Liberty St., New York.
New York Continental Jewell Filtration Co., 15 Broad St., New York.
Petroleum Iron Works Co., Sharon, Pa.
Pittsburg Filter Mfg. Co., Pittsburg, Pa.
Scaife & Sons Co., Wm. B., Pittsburg, Pa.

Filters (Oil)

American Steam Gauge & Valve Mfg. Co., 208-220 Camden St., Boston, Mass.
Burt Mfg. Co., Akron, Ohio.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Fairbanks Co., New York & Chicago.
National Valve & Mfg. Co., Pittsburg, Pa.

Filters (Rate-Controllers)

Builders Iron Foundry, Providence, R. I.
Pittsburg Filter Mfg. Co., Pittsburg, Pa.
New York Continental Jewell Filtration Co., 15 Broad St., New York.
Norwood Engineering Co., Florence, Mass.
Simplex Valve & Meter Co., Philadelphia, Pa.

Filters (Water)

Blaisdell Filtration Co., Real Estate Trust Bldg., Philadelphia, Pa.
Booth Co., L. M., 133 Liberty St., New York.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Jewell Export Filter Co., Providence, R. I.
Ley & Co., Fred T., 29 Broadway, New York.
Manitowoc Boiler Works Co., Manitowoc, Wis.
New York Continental Jewell Filtration Co., 15 Broad St., New York.
Nichols, E. M., Philadelphia, Pa.
Norwood Engineering Co., Florence, Mass.
Pittsburg Filter Mfg. Co., Pittsburg, Pa.
Roberts Filter Mfg. Co., Philadelphia, Pa.
Scaife & Sons Co., Wm. B., Pittsburg, Pa.
Simplex Valve & Meter Co., Philadelphia, Pa.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.,

Filter Presses

Murray Iron Works Co., Burlington, Ia.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Platt Iron Works Co., Dayton, Ohio.

Fire Brick and Fire Clay

Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Evens & Howard Fire Brick Co., St. Louis, Mo.
Harbison-Walker Refractories Co., Pittsburg, Pa.
Heinicke, H. R., 147 Fourth Ave., New York.
New York State Sewer Pipe Co., Rochester, N. Y.
Obermayer Co., S., Cincinnati, Ohio.
Pyro Clay Product Co., Oak Hill, Ohio.
Warner Co., Charles, Wilmington, Del.

Fire Escapes (Steel)

Berlin Construction Co., Berlin, Conn.
Burr, E. M., Champaign, Ill.
Hayward & Co., S. F., 39 Park Pl., New York.
Milliken Bros., Milliken, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
Whitehead & Kales Iron Works, Detroit, Mich.

Mention "Engineering Record" when writing.

Fire Extinguishers

Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Fairbanks Co., New York & Chicago.
Hayward & Co., S. F., 39 Park Pl., New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.

Fire Hose (See Hose)

Fireproof Construction

Asbestos Protected Metal Co., Canton, Mass.
Ash, John Wm., Austell, Ga.
Berger Mfg. Co., Canton, Ohio.
Buffalo Steel Co., Tonawanda, N. Y.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Carey Construction Co., 211 Lenox Bldg., Cleveland, O.
Consolidated Expanded Metal Engineering Co., 1182
Broadway, New York.
Corrugated Bar Co., 1410 Bank of Commerce Bldg., St.
Louis, Mo.
Garry Iron & Steel Co., Cleveland, Ohio.
General Fireproofing Co., Youngstown, Ohio.
Johns-Manville Co., H. W., 100 William St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.
National Fire Proofing Co., Pittsburg, Pa.
National Wire Cloth Co., Sandusky, Ohio.
Roebling Construction Co., 949 B'way, New York.
Trussed Concrete Steel Co., Detroit, Mich.
Worden-Allen Co., 115 Adams St., Chicago, Ill.

Fireproof Doors

Berger Mfg. Co., Canton, Ohio.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Johns-Manville Co., H. W., 100 William St., New York.
Lupton's Sons Co., David, Allegheny Ave. & Witte St.,
Philadelphia, Pa.
Milliken Bros., Milliken, N. Y.
Whitehead & Kales Iron Works, Detroit, Mich.
Wilson, J. G., Mfg. Co., New York.

Fireproof Windows

Dahlstrom Metallic Door Co., Jamestown, N. Y.
Lupton's Sons Co., David, Allegheny Ave. & Witte St.,
Philadelphia, Pa.
Milliken Bros., Milliken, N. Y.
Mullins Co., W. H., Salem, Ohio.
Trussed Concrete Steel Co., Detroit, Mich.

Fireproofing Materials

American Concrete Steel Co., Newark, N. J.
Asbestos Protected Metal Co., Canton, Mass.
Berger Mfg. Co., Canton, Ohio.
Bird & Co., J. A. & W., Boston, Mass.
Clinton Wire Cloth Co., Clinton, Mass.
Corrugated Bar Co., 1410 Bank of Commerce Bldg., St.
Louis, Mo.
Evans & Howard Fire Brick Co., St. Louis, Mo.
General Fireproofing Co., Youngstown, Ohio.
Johns-Manville Co., H. W., 100 William St., New York.
National Fire Proofing Co., Pittsburg, Pa.
Trussed Concrete Steel Co., Detroit, Mich.
Warner Co., Charles, Wilmington, Del.

Mention "Engineering Record" when writing.

Fire Protection Supplies

Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Fibre Conduit Co., Orangeburg, N. Y.
Hayward & Co., S. F., 39 Park Pl., New York.

Flanges

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Ellicott Machine Co., Bush & Severn Sts., Baltimore, Md.
Kellogg Co., M. W., 50 Church St., New York.
Lake Erie Engineering Works, Buffalo, N. Y.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
National Valve & Mfg. Co., Pittsburg, Pa.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Floor Plates

American Bridge Co., 30 Church St., New York.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Hunt Co., C. W., West New Brighton, N. Y.
Milliken Bros., Milliken, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Pittsburg Mfg. Co., Pittsburg, Pa.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.

Floor Stands

Exeter Machine Works., Exeter, N. H.
Pittsburg Mfg. Co., Pittsburg, Pa.
Rensselaer Mfg. Co., Troy, N. Y.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Flooring (Mastic)

American Asphaltum & Rubber Co., 600-614 Harvester Bldg., Chicago, Ill.
Standard Asphalt & Rubber Co., 205 LaSalle St., Chicago.

Flue Linings

Cannelton Sewer Pipe Co., Cannelton, Ind.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Evens & Howard Fire Brick Co., St. Louis, Mo.
Johns-Manville Co., H. W., 100 William St., New York.
Kellogg Co., M. W., 50 Church St., New York.
New York State Sewer Pipe Co., Rochester, N. Y.
Warner Co., Charles, Wilmington, Del.

Flumes

Maginnis, P., Kimball, Neb.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Platt Iron Works Co., Dayton, Ohio.

Flushtanks (See Tanks, Flush)

Fly-Wheels

Allis-Chalmers Co., Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Lake Erie Engineering Works, Buffalo, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Morris Co., I. P., Philadelphia, Pa.
Murray Iron Works Co., Burlington, Iowa.
Platt Iron Works Co., Dayton, Ohio.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Mention "Engineering Record" when writing.

Forges

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Chicago Scale Co., 1021 Jackson Boulevard, Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
New York Blower Co., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.

Forgings (Steel)

Atkinson Co., Wm. H., Hudson River, at 7th St., Hoboken, N. J.
American Bridge Co., 30 Church St., New York.
American Spiral Pipe Works, Chicago, Ill.
Carnegie Steel Co., Pittsburg, Pa.
Cleveland City Forge & Iron Co., Cleveland, Ohio.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Lake Erie Engineering Works, Buffalo, N. Y.
Mitchell & Tappen, 122 Liberty St., New York.
Patterson Co., W. W., Pittsburg, Pa.
Pennsylvania Steel Co., Steelton, Pa.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Pittsburg Mfg. Co., Pittsburg, Pa.
Prosser & Sons, Thos., 15 Gold St., New York.
Seneca Chain Co., Kent, Ohio.
Terry & Tench, New York.
Union Iron Works, Hoboken, N. J.

Forms (See Centers)

Foundations

Aberthaw Construction Co., Boston, Mass.
Carey Construction Co., 211 Lennox Bldg., Cleveland, O.
Foundation Co., 115 Broadway, New York.
Jackson, Geo. W., 754-756 Jackson Bvd., Chicago, Ill.
MacArthur Concrete Pile Co., 11 Pine St., New York.
O'Rourke Engineering & Construction Co., 345 Fifth Ave., New York.
Raymond Concrete Pile Co., New York & Chicago.
Snare & Triest, 143 Liberty St., New York.
Underpinning Co., 290 Broadway, New York.
United Paving Co., Atlantic City, N. J.
Wardwell, Frederick S., Stamford, Conn.

Foundry Equipment and Supplies

Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Goldschmidt Thermit Co., 90 West St., New York.
Harbison-Walker Refractories Co., Pittsburg, Pa.
Obermayer Co., S., Cincinnati, Ohio.
Russel Wheel & Foundry Co., Detroit, Mich.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 No. Fourth St., St. Louis, Mo.

Frogs and Switches (Railway)

Hough Co., W. B., Monadnock Block, Chicago.
Hunt Co., C. W., West New Brighton, N. Y.
Ingersoll-Rand Co., 11 Broadway, New York.
Orenstein-Arthur Koppel Co., Pittsburg, Pa.
Pennsylvania Steel Co., Steelton, Pa.
Peteler Car Co., Minneapolis, Minn.
U. S. Wind Engine & Pump Co., Batavia, Ill.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 No. Fourth St., St. Louis, Mo.

Mention "Engineering Record" when writing.

Fuel Economizers

Green Fuel Economizer Co., Matteawan, N. Y.
Parker Boiler Co., Pennsylvania Bldg., Philadelphia, Pa.
Phoenix Iron Works Co., Meadville, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
Westinghouse Machine Co., Pittsburg.

Furnaces (Garbage and Refuse)

American Pipe & Construction Co., Philadelphia.
American Process Co., 68 William St., New York.
Baldwin, Wm. J., World Bldg., New York.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
City Wastes Disposal Co., 156 Fifth Ave., New York.
Harbison-Walker Refractories Co., Pittsburg, Pa.
Lewis & Kitchen, 1200 Michigan Ave., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
Morse, W. F., 111 Broadway, New York.
Power Specialty Co., 111 Broadway, New York.
Westinghouse Machine Co., Pittsburg, Pa.

Furnaces (Lead)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Harbison-Walker Refractories Co., Pittsburg, Pa.
Leadite Co., Inc., Land Title Bldg., Philadelphia, Pa.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Power & Mining Machinery Co., Milwaukee, Wis.
Smith Mfg. Co., A. P., Passaic Ave., Newark, N. J.
Stuebner Iron Works, G. L., Foot of 12th St., L. I. City,
N. Y.
Waterworks Equipment Co., 50 Church St., New York.

Furnaces (Rivet)

Harbison-Walker Refractories Co., Pittsburg, Pa.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Pittsburg Mfg. Co., Pittsburg, Pa.

Furnaces (Smokeless)

American Ship Windlass Co., Providence, R. I.
Bryan, Wm. H., 315 Lincoln Trust Bldg., St. Louis, Mo.
Murphy Iron Works, Detroit, Mich.

Furniture and Office Fittings (Steel)

Berger Mfg. Co., Canton, Ohio.
General Fireproofing Co., Youngstown, Ohio.

Fuse

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Du Pont de Nemours Powder Co., E. I., Wilmington.
Johns-Manville Co., H. W., 100 William St., New York.
National Powder Co., 200 Fifth Ave., New York.
New York Blasting Supply Co., 11 Broadway, New York.
Sinnamahoning Powder Co., Emporium, Pa.

Garbage Crematories (See Furnace, Garbage)

Gas Compressors

Ingersoll-Rand Co., 11 Broadway, New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Platt Iron Works Co., Dayton, Ohio.

Gas Exhausters

American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
De Laval Steam Turbine Co., Trenton, N. J.
Exeter Machine Works, Exeter, N. H.
Power & Mining Machinery Co., Milwaukee, Wis.
Sturtevant Co., B. F., Hyde Park, Mass.

Mention "Engineering Record" when writing.

Gas Holders

Chicago Bridge & Iron Works, Chicago, Ill.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Graver Tank Works, Wm., East Chicago, Ind.
Lake Erie Engineering Works, Buffalo, N. Y.
McNeil & Bros., James, Pittsburg, Pa.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Petroleum Iron Works Co., Sharon, Pa.
Phoenix Iron Works Co., Meadville, Pa.
Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Scaife & Sons Co., Wm. B., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Tippett & Wood, Phillipsburg, N. J.
Treadwell Construction Co., Midland, Pa.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Gas Machinery

Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sheffield Gas Power Co., Kansas City, Mo.
Westinghouse Machine Co., Pittsburg, Pa.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Gas Producers

Allis-Chalmers Co., Milwaukee, Wis.
Fairbanks, Morse & Co., Chicago, Ill.
Foos Gas Engine Co., Springfield, Ohio.
Harrison Engineering Co., New York.
Hush, H. J., 39-41 Cortlandt St., New York.
International Steam Pump Co., 115 Broadway, New York.
Lake Erie Engineering Works, Buffalo, N. Y.
McNeil & Bros., James, Pittsburg, Pa.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Sheffield Gas Power Co., Kansas City, Mo.
Standard Scale & Supply Co., 50-52 So. Canal St., Chicago, Ill.
Strutchers-Wells Co., Warren, Pa.
Westinghouse Machine Co., Pittsburg, Pa.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Gas Scrubbers

Buffalo Forge Co., Buffalo, N. Y.
Chicago Bridge & Iron Works, Chicago, Ill.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Sheffield Gas Power Co., Kansas City, Mo.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Gas Works Construction

American Pipe & Construction Co., 112 N Broad St., Phila., Pa.
Graver Tank Works, Wm., East Chicago, Ind.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
White & Co., J. G., 43-49 Exchange Pl., New York.
Whitehead Kales Iron Works, Detroit, Mich.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Mention "Engineering Record" when writing.

Gaskets

Boston Belting Co., Boston, Mass.
Jenkins Bros., New York.
Johns-Manville Co., H. W., 100 William St., New York.
Kellogg Co., M. W., 50 Church St., New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
Power Specialty Co., 111 Broadway, New York.
Revere Rubber Co., Boston, Mass.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Gaskets (Copper)

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Kellogg Co., M. W., 50 Church St., New York.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Gates and Valves

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Chapman Valve Mfg. Co., Indian Orchard, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Coffin Valve Co. Neponset, Boston, Mass.
Coldwell-Wilcox Co., Newburgh, N. Y.
Fairbanks Co., New York & Chicago.
Fox & Co., John, 253 Broadway, New York.
Jenkins Bros., New York.
National Valve & Mfg. Co., Pittsburg, Pa.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Pittsburg Mfg. Co., Pittsburg, Pa.
Powell Co., Wm., Cincinnati, Ohio.
Seagrave, F. S., 89 Smith Ave., Detroit, Mich.
Smith, A. P., Mfg. Co., Passaic Ave., Newark, N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Waterworks Equipment Co., 50 Church St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Gates (Iron Entrance)

Anchor Post & Iron Works, 15 Church St., New York.
Belmont Iron Works, Philadelphia, Pa.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Milliken Bros., Milliken, N. Y.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.

Gates (Ore Bin)

Insley Mfg. Co., Indianapolis, Ind.
Lake Erie Engineering Works, Buffalo, N. Y.
Power & Mining Machinery Co., Milwaukee, Wis.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Gates, Sluice, (See Sluice Gates)

Gauges (Loss of Head and Rate of Flow)

Builders' Iron Foundry, Providence, R. I.
Coldwell-Wilcox Co., Newburgh, N. Y.
Simplex Valve & Meter Co., Philadelphia, Pa.

Gauges, Steam, (See Steam Specialties)

Gauges (Track)

Fairbanks, Morse & Co., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 N. 4th St., St. Louis, Mo.

Mention "Engineering Record" when writing.

Gears and Pinions

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
General Electric Co., Schenectady, N. Y.
Lea Equipment Co., 90 West St., New York.
Maine Electric Co., Portland, Me.
Platt Iron Works Co., Dayton, Ohio.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Taylor Iron & Steel Co., High Bridge, N. J.
Vulcan Iron Works, Chicago, Ill.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Generators (Electric)

American Blower Co., Detroit, Mich.
Burke Electric Co., Erie, Pa.
De Laval Steam Turbine Co., Trenton, N. J.
D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Maine Electric Co., Portland, Me.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Mietz, August, 128-138 Mott St., New York.
Ridgway Dynamo & Engine Co., Ridgway, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
U. S. Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wickes Bros., 90 West St., New York.

Giants, Hydraulic

American Spiral Pipe Works, Chicago, Ill.

Governors (Pump)

Foster Engineering Co., Newark, N. J.

Governors (Water-Wheel)

Allis-Chalmers Co., Milwaukee, Wis.
Morris Co., I. P., Philadelphia, Pa.

Graders and Scrapers, Earth (See Road Machinery)

Grain Elevators and Storage Tanks

Conveying Weigher Co., 92 West St., New York.
Graver Tank Works, Wm., East Chicago, Ind.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Grain Elevator Builders

Conveying Weigher Co., 92 West St., New York.
Hennebique Construction Co., 1170 B'way, New York.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.

Granite

Rockport Granite Co., Rockport, Mass.

Graphite

Dixon Crucible Co., Jos., Jersey City, N. J.
National Paint Works, 100 William St., New York.
Obermayer Co., S., Cincinnati, Ohio.

Grate Bars

Bartlett & Snow Co., C. O., Cleveland, Ohio.
Belmont Iron Works, Phila., Pa.
Buffalo Steel Co., Tonawanda, N. Y.

Mention "Engineering Record" when writing.

Burr, E. M., Champaign, Ill.
 Conveying Weigher Co., 92 West St., New York.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Fernyak & Stavenik Machine Co., Mansfield, Ohio.
 Flory Mfg. Co., S., Bangor, Pa.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Leader Foundry & Machine Co., Quincy, Ill.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Milliken Bros., Milliken, N. Y.
 Phœnix Iron Works Co., Meadville, Pa.
 Pittsburg Mfg. Co., Pittsburg, Pa.
 Russel Wheel & Foundry Co., Detroit, Mich.
 Smith & Son, Samuel, Paterson, N. J.
 Vulcan Iron Works, Chicago, Ill.
 Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Grates

Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Barrett Mfg. Co., 17 Battery Pl., N. Y.
 Burr, E. M., Champaign, Ill.
 Green Engineering Co., Chicago, Ill.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Phœnix Iron Works Co., Meadville, Pa.
 Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Gravel Roofing (See Roofing, Gravel)

Gravity Incline Machines

Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 New York Cableway & Engineering Co., 2 Rector St., New York.

Greases (See Lubricants)

Grinding and Mixing Machinery

Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Eureka Stone & Ore Crusher Co., Cedar Rapids, Ia.
 Kent Mill Co., 170 Broadway, New York.
 Lehigh Car Wheel & Axle Works, Catasauqua, Pa.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Prosser & Sons, Thos., 15 Gold St., New York.
 Raymond Bros. Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 Williams Patent Crusher & Pulverizer Co., Chicago, Ill.

Hammers

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Channon Co., H., Chicago, Ill.
 Fairbanks Co., New York & Chicago.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Wickes Bros., 90 West St., New York.

Hand Cars (See Cars, Hand and Push)

Hangers (Joist)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Milliken Bros., Milliken, N. Y.
 Platt Iron Works Co., Dayton, Ohio.
 Pittsburg Mfg. Co., Pittsburg, Pa.

Heads (Flanged and Dished Boiler)

Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Graver Tank Works, Wm., East Chicago, Ind.
 Lake Erie Engineering Works, Buffalo, N. Y.

Mention "Engineering Record" when writing.

Heaters (Air)

Green Fuel Economizer Co., Matteawan, N. Y.
Harrison Engineering Co., New York.
Power Specialty Co., 111 Broadway, New York.
Warner Co., Charles, Wilmington, Del.

Heaters (Electric)

General Electric Co., Schenectady, N. Y.
Johns-Manville Co., H. W., 100 William St., New York.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Heaters, Feed - Water (See Feed - Water Heaters)

Heating and Ventilating Apparatus

American Blower Co., Detroit, Mich.
American District Steam Co., Lockport, N. Y.
American Radiator Co., New York & Chicago.
Baldwin, Wm. J., World Bldg., New York.
Buffalo Forge Co., Buffalo, N. Y.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Exeter Machine Works, Exeter, N. H.
Green Fuel Economizer Co., Matteawan, N. Y.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Harrison Engineering Co., New York.
New York Blower Co., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Hoist and Grab Hooks

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Broderick & Bascom Rope Co., St. Louis, Mo.
Channon Co., H., Chicago, Ill.
Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Patterson Co., W. W., Pittsburg, Pa.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Union Iron Works, Hoboken, N. J.

Hoisting Rope (See Rope, Manila and Wire)

Holsts (Chain and Rope)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Broderick & Bascom Rope Co., St. Louis, Mo.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Channon Co., H., Chicago, Ill.
Chisolm & Moore Mfg. Co., Cleveland, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dake Engine Co., Grand Haven, Mich.
Fairbanks Co., New York & Chicago.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Obermayer Co., S., Cincinnati, Ohio.

Holsts (Electric)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Browning Mfg. Co., Cleveland, Ohio.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Channon Co., H., Chicago, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.

Mention "Engineering Record" when writing.

Ellicott Machine Co., Bush & Severn Sts., Baltimore, Md
 Euclid Crane & Hoist Co., Euclid, Ohio.
 Fairbanks, Morse & Co., Chicago, Ill.
 Flory Mfg. Co., S., Bangor, Pa.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago.
 General Electric Co., Schenectady, N. Y.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Inter-State Equipment & Engineering Co., 1775 Old
 Colony Bldg., Chicago, Ill.
 Lidgerwood Mfg. Co., 96 Liberty St., New York.
 Maine Electric Co., Portland, Me.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Monighan Machine Co., 2016-2030 Carroll Ave., Chicago.
 U. S. Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Vulcan Iron Works, Wilkes-Barre, Pa.
 Westinghouse Electric & Mfg. Co., Pittsburg, Pa.
 Williamson Bros. Co., Aramingo Ave. & Cumberland St.,
 Philadelphia, Pa.

Hoists (Gasoline)

Abenague Machine Works, Westminster Sta., Vt.
 Barron & Cole Co., 127 Franklin St., New York.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Builders' Material Supply Co., 301-335 Scarritt Bldg.,
 Kansas City, Mo.
 Channon Co., H., Chicago, Ill.
 Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Fairbanks, Morse & Co., Chicago, Ill.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago.
 Inter-State Equipment & Engineering Co., 1775 Old
 Colony Bldg., Chicago, Ill.
 Koehring Machine Co., Milwaukee, Wis.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Sheffield Gas Power Co., Kansas City, Mo.
 Standard Scale & Supply Co., Chicago, Ill.
 Williamson Bros. Co., Aramingo Ave. & Cumberland St.,
 Philadelphia, Pa.

Hoists (Hand)

Allis-Chalmers Co., Milwaukee, Wis.
 American Hoist & Derrick Co., St. Paul, Minn.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Broderick & Bascom Rope Co., St. Louis, Mo.
 Brown Hoisting Machinery Co., Cleveland, Ohio.
 Channon Co., H., Chicago, Ill.
 Chisholm & Moore Mfg. Co., Cleveland, Ohio.
 Cleveland Crane & Engineering Co., Wickliffe, Ohio.
 Coffin Valve Co., Neponset, Boston, Mass.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Inter-State Equipment & Engineering Co., 1775 Old
 Colony Bldg., Chicago, Ill.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Reedy Co., H. J., Cincinnati, Ohio.
 Stephens-Adamson Mfg. Co., Aurora, Ill.

Hoists (Head Gate)

Coldwell-Wilcox Co., Newburgh, N. Y.
 Coffin Valve Co., Neponset, Boston, Mass.
 Inter-State Equipment & Engineering Co., 1775 Old
 Colony Bldg., Chicago, Ill.

Hoists (Pneumatic)

Channon Co., H., Chicago, Ill.
 Dake Engine Co., Grand Haven, Mich.

Mention "Engineering Record" when writing.

Independent Pneumatic Tool Co., 1307 Michigan Ave.,
Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.

Hoists (Steam)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Barron & Cole Co., 127 Franklin St., New York.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Builders' Material & Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dake Engine Co., Grand Haven, Mich.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Foote Concrete Machinery Co., 184 La Salle St., Chi-
cago, Ill.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co. 1775 Old Col-
ony Bldg., Chicago, Ill.
Koehring Machine Co., Milwaukee, Wis.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Longenecker & Co., Chas. W., 150 Nassau St., New York.
Marine Metal & Supply Co., 167 South St., New York.
McCoy Co., Henry J., 65-67 Dey St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Ransome Concrete Machinery Co., Dunellen, N. J.
Reedy Co., H. J., Cincinnati, Ohio.
Troy Public Works Co., Utica, N. Y.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chi-
cago, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.
Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland,
Ohio.
Williamson Bros. Co., Aramingo & Cumberland Aves.,
Philadelphia, Pa.

Hooks (Wire Rope)

American Steel & Wire Co., 115 Adams St., Chicago, Ill.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Broderick & Bascom Rope Co., St. Louis, Mo.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Channon Co., H., Chicago, Ill.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Leschen & Sons Rope Co., St. Louis, Mo.
Patterson Co., W. W., Pittsburg, Pa.
Roebeling's Sons Co., Jno. A., Trenton, N. J.

Hose

American Metal Hose Co., New York.
Boston Belting Co., Boston, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Conveying Weigher Co. 92 West St., New York.
Edson Mfg. Co., 257 Atlantic Ave., Boston, Mass.
Fairbanks Co., New York & Chicago.
Goodrich Co., B. F., Akron, Ohio.
Hayward & Co., S. F., 39 Park Pl., New York.
Independent Pneumatic Tool Co., 1307 Michigan Ave.,
Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.

Mention "Engineering Record" when writing.

Marine Metal & Supply Co., 167 South St., New York
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
New York Blasting Supply Co., 11 Broadway, New York
Revere Rubber Co., Boston, Mass.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Wood Drill Works, Paterson, N. J.

Hose Attachments

Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Hayward & Co., S. F., 39 Park Pl., New York.
Ingersoll-Rand Co., 11 Broadway, New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
Revere Rubber Co., Boston, Mass.

Hose Couplings

Allis-Chalmers Co., Milwaukee, Wis.
American Injector Co., Detroit, Mich.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Edson Mfg. Co. 257 Atlantic Ave., Boston, Mass.
Fairbanks Co. New York & Chicago.
Hayward & Co., S. F., 39 Park Pl., New York.
Independent Pneumatic Tool Co., Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
New York Blasting Supply Co., 11 Broadway, New York
Powell Co., Wm. Cincinnati, Ohio.
Revere Rubber Co., Boston, Mass.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Wood Drill Works, Paterson, N. J.

Hose (Protected)

American Metal Hose Co., New York.
Boston Belting Co., Boston, Mass.
Goodrich Co., B. F., Akron, Ohio.
Ingersoll-Rand Co., 11 Broadway, New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
New York Blasting Supply Co., 11 Broadway, New York
Revere Rubber Co., Boston, Mass.

Hose Racks

Boston Belting Co., Boston, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Fairbanks Co. New York & Chicago.
Hayward & Co., S. F., 39 Park Pl., New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
Revere Rubber Co., Boston, Mass.
Smith Mfg. Co., A. P., Passaic Ave., Newark, N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Hydrants

Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Fox & Co., John, 253 Broadway, New York.
Norwood Engineering Co., Florence, Mass.
Pacific Tank & Pipe Co., 318 Market St., San Francisco
Pittsburg Mfg. Co., Pittsburg, Pa.
Rensselaer Mfg. Co., Troy, N. Y.
Seagrave F. S., 89 South Ave., Detroit, Mich.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Water Works Equipment Co. 50 Church St., New York
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Hydrating Lime Machinery

Kritzer Co., 115 Adams St., Chicago, Ill.

Hydraulic Leather Packings

Channon Co., H., Chicago, Ill.
Dudgeon, Richard, 24 Columbia St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Mention "Engineering Record" when writing.

Hydraulic Machinery
Harrison-Stillman Co., 58 Church St., New York.

Hydraulic Rams
Harrison Co., Salem, Ohio.
Hydraulic Specialty Co., 111 Broadway, N. Y.

Ice and Refrigerating Machinery
Hendell-Wilcox Co., Newburgh, N. Y.
Hessfield Gas Power Co., Kansas City, Mo.

**Incline Cableway Engines (See Engines In-
cline Cableway)**

Indicator Posts

Howe & Sons, James B., 342 Franklin St., Chicago, Ill.
Hudsonbanks Co., New York & Chicago.
Hutchinson Mfg. Co., Pittsburg, Pa.
Husselaer Mfg. Co., Troy, N. Y.
Huth Mfg. Co., A. P., Passaic Ave., Newark, N. J.
Hulworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Induced Draft Equipment

American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Exeter Machine Works, Exeter, N. H.
Green Fuel Economizer Co., Matteawan, N. Y.
Hake Erie Engineering Works, Buffalo, N. Y.
New York Blower Co., Chicago, Ill.
Hartevant Co., B. F., Hyde Park, Mass.

Injectors

American Injector Co., Detroit, Mich.
Hannon Co., H., Chicago, Ill.
Howe & Sons, James B., 342 Franklin St., Chicago, Ill.
Hudsonbanks Co., New York & Chicago.
Hakins Bros., New York.
H.C. Dowell & Co., Grant & Western Aves., Allegheny, Pa.
Howell Co., Wm., Cincinnati, Ohio.
Hulworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Inspection of Materials

Howard, Wm. R., 322 High St., Burlington, N. J.
Howe & Smith, 24 East 21st St., New York.
Hedley Engineering & Inspecting Co., 30 Church St.,
New York.
Houndry Eng'g. & Inspection Bureau, 78 Dwight St.,
Springfield, Mass.
Hulick-Henderson Co., Manhattan Bldg, Chicago.
Hallett, Nelson A., 1 Ashburton Pl., Boston, Mass.
Hunt & Co., Robt. W., Monongahela Bank Bldg., Pitts-
burg, Pa.
High Valley Testing Laboratory, Allentown, Pa.

**Instruments, Engineering, Surveying and
Mathematical (See Engineers' and Sur-
veyors' Instruments and Supplies)**

Insulating Materials

Hird & Co., J. A. & W., Boston, Mass.
General Electric Co., Schenectady, N. Y.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Insurance

Contractors & Builders Insurance Agency, Inc., Rich-
mond, Va.
Hitch, W. T., 1123 Broadway, New York.

Iron (Corrugated)

American Rolling Mill Co., Middleton, Ohio.
Asbestos Protected Metal Co., Canton, Mass.

Mention "Engineering Record" when writing.

Berger Mfg. Co., Canton, Ohio.
 Berlin Construction Co., Berlin, Conn.
 Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Garry Iron & Steel Co., Cleveland, Ohio.
 Inland Steel Co., Chicago, Ill.
 Kratzer & Co., W. N., Pittsburg, Pa.
 Milliken Bros., Milliken, N. Y.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Shoemaker & Co., Lewis F., Harrison Bldg., Phila., Pa.

Iron Fence and Railings (See Fence and Railing)

Iron Sheet (See Also Sheets, Iron and Steel)

Belmont Iron Works, Philadelphia, Pa.
 Graver Tank Works, Wm., East Chicago, Ind.
 Inland Steel Co., Chicago, Ill.
 Kratzer & Co., W. N., Pittsburg, Pa.
 Milliken Bros., Milliken, N. Y.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Shoemaker & Co., Lewis F., Harrison Bldg., Phila., Pa.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Whitehead & Kales Iron Works, Detroit, Mich.

Ironwork (Architectural and Ornamental)

Anchor Post Iron Works, 15 Church St., New York.
 Berger Mfg. Co., Canton, Ohio.
 Berlin Construction Co., Berlin, Conn.
 Boston Bridge Works, 47 Winter St., Boston, Mass.
 Brown-Ketcham Iron Works, Indianapolis, Ind.
 Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
 Burr, E. M., Champaign, Ill.
 Carnegie Steel Co., Pittsburg, Pa.
 Central States Bridge Co., Indianapolis, Ind.
 Champion Bridge Co., Wilmington, Ohio.
 Chicago Bridge & Iron Works, Chicago, Ill.
 Clinton Bridge & Iron Works, Clinton, Iowa.
 Des Moines Bridge & Iron Co., Des Moines, Iowa.
 Hudson Structural Steel Co., 136th St. & So. Boulevard, New York.
 Jones & Laughlin Steel Co., Pittsburg, Pa.
 Kenwood Bridge Co., 1416 First Nat. Bank Bldg., Chicago, Ill.
 Leader Foundry & Machine Co., Quincy, Ill.
 Milliken Bros., Milliken, N. Y.
 Milwaukee Bridge Co., Milwaukee, Wis.
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.
 Mullins Co., W. H., Salem, Ohio.
 Murray Iron Works Co., Burlington, Iowa.
 Noelke Richards Iron Works, Indianapolis, Ind.
 Oregonia Bridge Co., Lebanon, Ohio.
 Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Russel Wheel & Foundry Co., Detroit, Mich.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Shoemaker & Co., Lewis F., Harrison Bldg., Philadelphia, Pa.
 Steel Roof Truss Co., 618 New Bank of Commerce Bldg. St. Louis, Mo.
 Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
 Whitehead & Kales Iron Works, Beecher Ave. & M. C. R. R., Detroit, Mich.

Mention "Engineering Record" when writing.

Wisconsin Bridge & Iron Co., 605 Colby-Abbot Bldg., Milwaukee, Wis.
Vorden-Allen Co., 115 Adams St., Chicago, Ill.

Irrigation

Allis-Chalmers Co., Milwaukee, Wis.
American Engineering & Construction Co., 789-791-793 Drexel Bldg., Philadelphia, Pa.
American Well Works, Aurora, Ill.
Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
Austin Drainage Excavator Co., F. C., Railway Exchange, Chicago.
Excelsior Wooden Pipe Co., 916 Balboa Bldg., San Francisco, Cal.
Marion Steam Shovel Co., Marion, Ohio.
White & Co., J. G., 43-49 Exchange Pl., New York.

Irrigation Supplies

Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
Barron & Cole Co., 127 Franklin St., New York.
De Laval Steam Turbine Co., Trenton, N. J.
Fairbanks, Morse & Co., Chicago, Ill.
Lackawanna Steel Co., 2 Rector St., New York.
Marine Metal & Supply Co., 167 South St., New York.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Pittsburg Mfg. Co., Pittsburg, Pa.
Portland Wood Pipe Co., Portland, Ore.
Powell Co., Wm., Cincinnati, Ohio.
Pulsometer Steam Pump Co., 16 Battery Pl., New York.
Sheffield Gas Power Co., Kansas City, Mo.

Jacks (Hydraulic)

Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dudgeon, Richard, 24 Columbia St., New York.
Duff Mfg. Co., Pittsburg, Pa.
Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Parker, F. I., Pennsylvania Bldg., Philadelphia, Pa.
Watson-Stillman Co., 58 Church St., New York.

Jacks (Pneumatic)

Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.

Jacks (Screw and Lever)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Channon Co., H., Chicago, Ill.
Chicago Scale Co., 1021 Jackson Bvd. Chicago, Ill.
Cleveland City Forge & Iron Co., Cleveland, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Duff Mfg. Co., Pittsburg, Pa.
Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
McCoy Co., Henry J., 65 and 67 Dey St., New York.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Jacks (Track)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Duff Mfg. Co., Pittsburg, Pa.
Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.

Mention "Engineering Record" when writing.

Parker, F. J., Pennsylvania Bldg., Philadelphia Pa.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Joints (Expansion, Copper)

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Kellogg Co., M. W., 50 Church St., New York.
National Valve & Mfg. Co., Pittsburg, Pa.

Joints (Flexible)

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Coldwell-Wilcox Co., Newburg, N. Y.
Fairbanks Co., New York & Chicago.
New York Blasting & Supply Co., 11 Broadway, N. Y.
Walker Mfg. Co., Fenton, Mich.

Kettles (Melting)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Channon Co., H., Chicago, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Dupont de Nemours Powder Co., E. I., Wilmington, De.
Fairbanks Co., New York & Chicago.
Iroquois Iron Works, Buffalo, N. Y.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
McNeil & Bros., James, Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Stuebner Iron Works, G. L., Ft. 12th St., L. I. City
N. Y.
Vulcan Iron Works, Chicago, Ill.

Kettles (Steam Jacket)

Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Iroquois Iron Works, Buffalo, N. Y.
Murray Iron Works Co., Burlington, Iowa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Smith & Son Co., Samuel, Paterson, N. J.
Petroleum Iron Works Co., Sharon, Pa.
Struthers-Wells Co., Warren, Pa.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Kilns

Manitowoc Boiler Works Co., Manitowoc, Wis.
Power & Mining Machinery Co., Milwaukee, Wis.
Vulcan Iron Works, Wilkes Barre, Pa.

Kilns (Cement)

Allis-Chalmers Co., Milwaukee, Wis.
Harbison-Walker Refractories Co., Pittsburg, Pa.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Vulcan Iron Works, Wilkes Barre, Pa.

Kilns (Drying)

Allis-Chalmers Co., Milwaukee, Wis.
American Blower Co., Detroit, Mich.
Cummer & Sons Co., F. D., 413 Arcade, Cleveland, Ohio.
Graver Tank Works, Wm., East Chicago, Ind.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
Vulcan Iron Works, Wilkes Barre, Pa.

Mention "Engineering Record" when writing.

Kilns (Lime)

Is-Chalmers Co., Milwaukee, Wis.
Over Tank Works, Wm., East Chicago, Ind.
Over & Mining Machinery Co., Milwaukee, Wis.
Over-Conley Mfg. Co., Pittsburg, Pa.
Alcan Iron Works, Wilkes Barre, Pa.

Ladies (Foundry)

Lockburn Barrow & Mach. Co., 30 Church St., New York.
Manitowoc Boiler Works Co., Manitowoc, Wis.
McNeil & Bros., James, Pittsburg, Pa.
Bermayer Co., S., Cincinnati, Ohio.

Ladies (Foundry Car)

Went Co., C. W., West New Brighton, N. Y.
Bermayer Co., S., Cincinnati, Ohio.
Russell Wheel & Foundry Co., Detroit, Mich.
Sharon Boiler Works, Florida St., Sharon, Pa.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Ladies (Steel)

Wairbanks Co., New York & Chicago.
McNeil & Bros., Jas., Pittsburg, Pa.
Mitchell & Tappen, 122 Liberty St., New York.
Bermayer Co., S., Cincinnati, Ohio.
Petroleum Iron Works Co., Sharon, Pa.
Over-Conley Mfg. Co., Pittsburg, Pa.
Union Iron Works, Hoboken, N. J.

Lamp Posts

Belmont Iron Works, Eddystone, Pa.
Low & Sons, James B., 342 Franklin St., Chicago, Ill.
Fox & Co., John, 253 Broadway, New York.
Leader Foundry & Machine Co., Quincy, Ill.
Milliken Bros., Milliken, N. Y.
Minneapolis Steel & Machine Co., Minneapolis, Minn.
Schreiber & Sons Co., L., Cincinnati, Ohio.

Lamps (Arc and Incandescent)

Cooper Hewitt Elec. Co., 220 West 29th St., New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
General Electric Co., Schenectady, N. Y.
Maine Electric Co., Portland, Me.
Milliken Bros., Milliken, N. Y.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Lath (Metal)

American Rolling Mill Co., Middletown, Ohio.
Berger Mfg. Co., Canton, Ohio.
Clinton Wire Cloth Co., Clinton, Mass.
Corrugated Bar Co., St. Louis, Mo.
Garry Iron & Steel Co., Cleveland, Ohio.
General Fireproofing Co., Youngstown, Ohio.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Roebbling Construction Co., 949 Broadway, New York.
Trussed Concrete Steel Co., Detroit, Mich.
Warner Co., Charles, Wilmington, Del.

Leadite (See Also Packing, Metallic)

Leadite Co., Land Title Bldg., Phila., Pa.
Water Works Equipment Co., 50 Church St., New York.

Lead-Wool (See Also Packing, Metallic)

Water Works Equipment Co., 50 Church St., New York.

Levels

Architects' & Engineers' Supply Co., Kansas City, Mo.
Berger & Sons, C. L., Boston, Mass.

Mention "Engineering Record" when writing.

Fairbanks Co., New York & Chicago.
Geier & Bluhm, Troy, N. Y.
Iszard-Warren Co., 136 N. 12th St., Philadelphia, Pa.
Keuffel & Esser Co., Hoboken, N. J.
Kolesch & Co., 138 Fulton St., New York.

Levels (Track)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.

Lifting Magnets

Brown Hoisting Machinery Co., Cleveland, Ohio.
Obermayer Co., S., Cincinnati, Ohio.

Lighthouse Foundations

Foundation Co., 115 Broadway, New York.
MacArthur Concrete Pile Co., 11 Pine St., New York.
Wardwell, Frederick S., Stamford, Conn.

Lights (Contractors')

McCoy Co., Henry J., 65 & 67 Dey St., New York.
Milburn Co., Alexander, Baltimore, Md.
Wells Light Mfg. Co., 154 Chestnut Ave., Jersey City.

Lights (Sidewalks and Vault)

American Luxfer Prism Co., 42 Madison St., Chicago.
Belmont Iron Works, Philadelphia, Pa.
Berger Mfg. Co., Canton, Ohio.
Builders Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Milliken Bros., Milliken, N. Y.
Minwax Co., 1123 Broadway, New York.
National Ventilating Co., 337 East 26th St., New York.
Russel Wheel & Foundry Co., Detroit, Mich.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.

Lime

Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Warner Co., Charles., Wilmington, Del.

Lime (Hydrated)

Warner Co., Charles, Wilmington, Del.

Lime Hydrating Plants

Kritzer Co., 115 Adams St., Chicago, Ill.

Lockers

Berger Mfg. Co., Canton, Ohio.
Clinton Wire Cloth Co., Clinton, Mass.

Locomotives (Compressed Air)

Ingersoll-Rand Co., 11 Broadway, New York.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Parsons Co., G. T., Newton, Iowa.
Porter Co., H. K., Pittsburg, Pa.
Vulcan Iron Works, Wilkes Barre, Pa.

Locomotives (Electric)

American Locomotive Co., 30 Church St., New York.
General Electric Co., Schenectady, N. Y.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Maine Electric Co., Portland, Me.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Mention "Engineering Record" when writing.

Locomotives (Gasoline)

Abenague Machine Works, Westminster Station, Vt.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Lima Locomotive & Machine Co., Lima, Ohio.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Locomotives (Industrial and Light)

American Locomotive Co., 30 Church St., New York.
Atlantic Equipment Co., 30 Church St., New York.
Davenport Locomotive Works, Davenport, Iowa.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Lima Locomotive & Machine Co., Lima, Ohio.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Orenstein-Arthur Koppel Co., Pittsburg, Pa.
Porter Co., H. K., Pittsburg, Pa.
Southern Iron & Equipment Co., Atlanta, Ga.
United States Equipment Co., 1201 Fisher Bldg., Chicago.
Vulcan Iron Works, Wilkes-Barre, Pa.
Westinghouse Machine Co., Pittsburg, Pa.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Locomotives (Steam)

American Locomotive Co., 30 Church St., New York.
Atlantic Equipment Co., 30 Church St., New York.
Davenport Locomotive Works, Davenport, Iowa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Lima Locomotive & Machine Co., Lima, Ohio.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Porter Co., H. K., Pittsburg, Pa.
Southern Iron & Equipment Co., Atlanta, Ga.
United States Equipment Co., 1201 Fisher Bldg., Chicago.
Vulcan Iron Works, Wilkes Barre, Pa.
Wickes Bros., 90 West St., New York.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Locomotives, Traction (See Also Engines, Traction)

Brown Hoisting Machinery Co., Cleveland, Ohio.
Buffalo Pitts Co., Buffalo, N. Y.
Huber Mfg. Co., Marion, Ohio.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.

Logging Outfits

Abenague Machine Works, Westminster Station, Vt.
Channon Co., H., Chicago, Ill.
Flory Mfg. Co., S., Bangor, Pa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Maine Electric Co., Portland, Me.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
New York Cableway & Engineering Co., 2 Rector St.,
New York.
Parsons Co., G. T., Newton, Iowa.

Mention "Engineering Record" when writing.

Russel Wheel & Foundry Co., Detroit, Mich.
Southern Iron & Equipment Co., Atlanta, Ga.
Williamson Bros. Co., Aramingo Ave. & Cumberland St.,
Philadelphia, Pa.

Log Loaders

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Fairbanks, Morse & Co., Chicago, Ill.
Flory Mfg. Co., S., Bangor, Pa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Maine Electric Co., Portland, Me.
Marion Steam Shovel Co., Marion, Ohio.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Russel Wheel & Foundry Co., Detroit, Mich.

Lubricants

Broderick & Bascom Rope Co., St. Louis, Mo.
Dixon Crucible Co., Jos., Jersey City, N. J.
Exeter Machine Works, Exeter, N. H.
Indian Refining Co., First Nat'l. Bank Bldg., Cincinnati, Ohio.
Lunkenheimer Co., Cincinnati, Ohio.
New York Blasting & Supply Co., 11 Broadway, N. Y.
Obermayer & Co., S., Cincinnati, Ohio.
Texas Co., 17 Battery Pl., New York.

Lubricators

Exeter Machine Works, Exeter, N. H.
Powell Co., Wm., Cincinnati, Ohio.

Lumber (Creosoted)

American Creosote Works, New Orleans, La.
Gulfport Creosoting Co., Gulfport, Miss.
Southern Wood Preserving Co., Atlanta, Ga.
Wyckoff Pipe & Creosoting Co., 50 Church St., N. Y.

Machine Tools

Fairbanks Co., New York & Chicago.
Wickes Bros., 90 West St., New York.
Wiener Machinery Co., 50 Church St., New York.

Machinery, Second-Hand (See Second-Hand Machinery and Supplies)

Machinists and Founders

Allis-Chalmers Co., Milwaukee, Wis.
Chain Belt Co., Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave., West of 17th St.,
Philadelphia, Pa.
Ellicott Machine Co., Bush & Severn Sts., Baltimore.
Lake Erie Engineering Works, Buffalo, N. Y.
Leader Foundry & Machine Co., Quincy, Ill.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Morris Co., I. P., Philadelphia, Pa.
Norwood Engineering Co., Florence, Mass.
Pittsburg Mfg. Co., Pittsburg, Pa.
Robins Conveying Belt Co., 13 Park Row, New York.
Russel Wheel & Foundry Co., Detroit, Mich.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Walker Mfg. Co., Fenton, Mich.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.
Williams Patent Crusher & Pulverizer Co., Chicago, Ill.

Machinists' Tools

Channon Co., H., Chicago, Ill.

Mention "Engineering Record" when writing.

Fairbanks Co., New York & Chicago.
Lufkin Rule Co., Saginaw, Mich.
Wiener Machinery Co., 50 Church St., New York.

Manganese Steel

Manganese Steel Rail Co., 30 Church St., New York.
Pennsylvania Steel Co., Steelton, Pa.
Taylor Iron & Steel Co., High Bridge, N. J.

Manhole Covers

American District Steam Co., Lockport, N. Y.
Belmont Iron Works, Philadelphia, Pa.
Burr, M. E., Champaign, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Fox & Co., John, 253 Broadway, New York.
Lake Erie Engineering Works, Buffalo, N. Y.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Milliken Bros., Milliken, N. Y.
Mitchell & Tappen, 122 Liberty St., New York.
Murray Iron Works, Burlington, Iowa.
Russel Wheel & Foundry Co., Detroit, Mich.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Sessions Foundry Co., Bristol, Conn.
Vulcan Iron Works, Chicago, Ill.
Whitehead & Kales Iron Works, Detroit, Mich.

Marble (Workers and Dealers)

Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.

Mauls

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Terry & Tench, New York.

Mechanical Draft Plant

American Blower Co., Detroit, Mich.
American Ship Windlass Co., Providence, R. I.
Baldwin, Wm. J., World Bldg., New York.
Buffalo Forge Co., Buffalo, N. Y.
Exeter Machine Works, Exeter, N. H.
Green Fuel Economizer Co., Matteawan, N. Y.
Kidde, Walter, 140 Cedar St., New York.
Lake Erie Engineering Works, Buffalo, N. Y.
New York Blower Co., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.
Wing Mfg. Co., L. J., 90 West St., New York.

Mechanical Rubber Goods

Mulconroy Co., 722 Arch St., Philadelphia, Pa.

Metal Shingles and Tile

Berger Mfg. Co., Canton, Ohio.
Mullins Co., W. H., Salem, Ohio.

Metallic Window Frame and Sash

Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Berger Mfg. Co., Canton, Ohio.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Luptons' Sons Co., David, Philadelphia, Pa.
Milliken Brothers, Miliken, N. Y.
Mullins Co., W. H., Salem, Ohio.

Metals (Reinforcing)

American System of Reinforcing, 189 La Salle St., Chicago, Ill.

Mention "Engineering Record" when writing.

Brown Hoisting Machinery Co., Cleveland, Ohio.
Clinton Wire Cloth Co., Clinton, Mass.
Concrete-Steel Engineering Co., Park Row Bldg., N. Y.
Corrugated Bar Co., St. Louis, Mo.
General Fireproofing Co., Youngstown, Ohio.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Roebbling Construction Co., 949 Broadway, New York.
Trussed Concrete Steel Co., Detroit, Mich.
Warner Co., Charles, Wilmington, Del.

Meter Box Covers

Buffalo Meter Co., 290 Terrace, Buffalo, N. Y.
Builders' Iron Foundry, Providence, R. I.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
McWane Pipe Works, 220 Broadway, New York.
Pittsburg Meter Co., East Pittsburg, Pa.

Meter Provers

Pittsburg Meter Co., East Pittsburg, Pa.

Meters (Water, Oil and Gas)

Buffalo Meter Co., 290 Terrace, Buffalo, N. Y.
Builders' Iron Foundry, Providence, R. I.
Builders Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
National Meter Co., 84 Chambers St., New York.
Neptune Meter Co., 90 West St., New York.
Pittsburg Meter Co., East Pittsburg, Pa.
Simplex Valve & Meter Co., Phila., Pa.
Worthington, Henry R., 115 Broadway, New York.

Mills, Sugar (See Sugar Mill Machinery)

Mining Machinery

Allis-Chalmers Co., Milwaukee, Wis.
American Process Co., 68 William St., New York.
Atlas Dryer Co., Cleveland, Ohio.
Austin-Western Co., Ltd., Chicago, Ill.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Broderick & Bascom Rope Co., St. Louis, Mo.
Channon Co., H., Chicago, Ill.
Cresson Co., Geo. V., Allegheny Ave. West of 17th St.,
Phila., Pa.
Cummer & Son Co., F. D., 413 Arcade, Cleveland, Ohio.
D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
Dow Pumping Engine Co., Geo. E., 179 First St., San
Francisco, Cal.
Ingersoll-Rand Co., 11 Broadway, New York.
International Steam Pump Co., 115 Broadway, New York.
Keay's Cable Grip Co., 97 Liberty St., New York.
Kent Mill Co., 170 Broadway, New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Maine Electric Co., Portland, Me.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
McKiernan Drill Co., 115 Broadway, New York.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Power & Mining Machinery Co., Milwaukee, Wis.
Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
Prosser & Sons, Thos., 15 Gold St., New York.
Raymond Bros. Impact Pulverizer Co., 1500 Harrison St.,
Chicago, Ill.
Sheffield Gas Power Co., Kansas City, Mo.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Vulcan Iron Works, Wilkes Barre, Pa.

Mention "Engineering Record" when writing.

Mining Shafts

Carnegie Steel Co., Pittsburg, Pa.
Cresson Co., Geo., Philadelphia, Pa.
Foundation Co., 115 Broadway, New York.

Mixers (Asphalt)

Bartlett & Snow Co., C. O., Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cummer & Son Co., F. D., 413 Arcade, Cleveland, Ohio.
Erie Machine Shops, 13th & Peach Sts., Erie, Pa.
Foote Concrete Machinery Co., 184 La Salle St., Chicago.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Iroquois Iron Works, Buffalo, N. Y.
Koehring Machine Co., Milwaukee, Wis.
McCoy & Co., Henry J., 65 & 67 Dey St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Milwaukee Concrete Mixer & Machinery Co., 283 Clinton St., Milwaukee, Wis.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.

Mixers (Cement),

Abenague Machine Works, Westminster Station, Vt.
Atlas Dryer Co., Cleveland, Ohio.
Austin Cube Mixer Co., Railway Exchange, Chicago.
Barron & Cole Co., 127 Franklin St., New York.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Builders' Material Supply Co., 301-335 Searritt Bldg., Kansas City, Mo.
Chain Belt Co., Milwaukee, Wis.
Clover Leaf Equipment Co., South Bend, Ind.
Conveying Weigher Co., 92 West St., New York.
Dunning, W. D., Syracuse, N. Y.
Eureka Machine Co., Lansing, Mich.
Eureka Stone & Ore Crusher Co., Cedar Rapids, Iowa.
Foote Concrete Machinery Co., 184 La Salle St., Chicago.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Iroquois Iron Works, Buffalo, N. Y.
Koehring Machine Co., Milwaukee, Wis.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy & Co., Henry J., 65 & 67 Dey St., New York.
Milwaukee Concrete Mixer & Mach'y Co., 283 Clinton St., Milwaukee, Wis.
Municipal Engineering & Contracting Co., 607-611 Railway Exchange, Chicago, Ill.
National Mixer Co., Powers Bldg., Rochester, N. Y.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Standard Scale & Supply Co., Chicago, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.

Mixers (Concrete)

Abenague Machine Works, Westminster Station, Vt.
Acme Equipment & Engineering Co., Cleveland, Ohio.
Austin Cube Mixer Co., Railway Exchange, Chicago, Ill.
Barron & Cole Co., 127 Franklin St., New York.
Bond Co., Harold L., 383-391 Atlantic Ave, Boston, Mass.
Builders' Material Supply Co., 301-335 Searritt Bldg., Kansas City, Mo.
Chain Belt Co., Milwaukee, Wis.
Channon Co., H., Chicago, Ill.
Chicago Concrete Machinery Co., Chicago.
Clover Leaf Equipment Co., South Bend, Ind.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.

Mention "Engineering Record" when writing.

Concrete-Steel Engrg. Co., Park Row Bldg., New York.
 Contractors' Plant M'fg. Co., 129 Erie st, Buffalo, N. Y.
 Conveying Weigher Co., 92 West St., New York.
 Drake Standard Machine Works, 1023 W. Jackson Boulevard, Chicago, Ill.
 Erie Machine Shops, 13th & Peach Sts., Erie, Pa.
 Eureka Machine Co., Lansing, Mich.
 Fairbanks Co., New York & Chicago.
 Foote Concrete Machinery Co., 184 La Salle St. Chicago.
 Hadsell Engineering Co., Scranton, Pa.
 Hains Concrete Machinery Co., Washington, D. C.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Interlocking Steel Co., Cleveland, Ohio.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Koehring Machine Co., Milwaukee, Wis.
 Longenecker & Co., Chas. W., 150 Nassau St., New York.
 Marine Metal & Supply Co., 167 South St., New York.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy & Co., Henry J., 65 & 67 Dey St., New York.
 Milwaukee Concrete Mixer & Machinery Co., 283 Clinton St., Milwaukee, Wis.
 Municipal Engrg. & Contracting Co., 607-611 Ry. Exchange, Chicago, Ill.
 Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
 Ohio Ceramic Engrg. Co., Cleveland, Ohio.
 Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Standard Scale & Supply Co., 50 & 52 So. Canal St., Chicago, Ill.
 Svenson-Shuman Machine Co., 602 Bessemer Bldg., Pittsburgh, Pa.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wickes Bros., 90 West St., New York.

Mixers (Mortar)

Allis-Chalmers Co., Milwaukee, Wis.
 Austin Cube Mixer Co., Railway Exchange, Chicago, Ill.
 Barron & Cole Co., 127 Franklin St., New York.
 Chain Belt Co., Milwaukee, Wis.
 Conveying Weigher Co., 92 West St., New York.
 Eureka Machine Co., Lansing, Mich.
 Eureka Stone & Ore Crusher Co., Cedar Rapids, Ia.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Milwaukee Concrete Mixer & Machinery Co., 283 Clinton St., Milwaukee, Wis.
 Monighan Machine Co., 2016 & 2030 Carroll Ave., Chicago, Ill.
 Municipal Engrg. & Contracting Co., 607-611 Railway Exchange, Chicago, Ill.
 Ohio Ceramic Engrg. Co., Cleveland, Ohio.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.

Motor Cars

Fairbanks, Morse & Co., Chicago, Ill.
 General Electric Co., Schenectady, N. Y.
 Studebaker Bros. Mfg. Co., So. Bend, Ind.

Mention "Engineering Record" when writing.

Westinghouse Electric & Mfg. Co., Pittsburg, Pa.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Motors (Compressed Air)

Dake Engine Co., Grand Haven, Mich.
Ingersoll-Rand Co., 11 Broadway, New York.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Motors (Electric)

Allis-Chalmers Co., Milwaukee, Wis.
Burke Electric Co., Erie, Pa.
D'Olier Engineering Co., 119-121 So. 11th St., Phila., Pa.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Maine Electric Co., Portland, Me.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Ridgway Dynamo & Engine Co., Ridgway, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.
Wickes Bros., 90 West St., New York.

Motors (Water and Steam)

De Laval Steam Turbine Co., Trenton, N. J.
D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.

Nails (Wire)

American Steel & Wire Co., 115 Adams St., Chicago, Ill.
Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.

Netting (Wire)

American Steel & Wire Co., 115 Adams St., Chicago, Ill.
Anchor Post Iron Works, 15 Church St., New York.
Clinton Wire Cloth Co., Clinton, Mass.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Roebbling Construction Co., 949 Broadway, New York.

Nickel Steel

Carnegie Steel Co., Pittsburg, Pa.
Cresson Co., Geo. V., Allegheny Ave., West of 17th St., Philadelphia, Pa.
Pennsylvania Steel Co., Steelton, Pa.
Prosser & Son, Thos., 15 Gold St., New York.

Nuts and Nut Locks

Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.

Oakum

American Mfg. Co., 65 Wall St., New York.
Broderick & Bascom Rope Co., St. Louis, Mo.
Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Leschen & Sons Rope Co., St. Louis, Mo.
Leadite Co., Inc., Land Title Bldg., Philadelphia, Pa.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Zelnicker Supply Co. Walter A., 406 No. Fourth St., St. Louis, Mo.

Oil Burners

Advance Pump & Compressor Co., Battle Creek, Mich.
Buffalo Pitts Co., Buffalo, N. Y.
Lunkenheimer Co., Cincinnati, Ohio.
Petroleum Iron Works Co., Sharon, Pa.

Mention "Engineering Record" when writing.

Oil Filters (See Filters, Oil)

Oil (Linseed)

Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Sterling Varnish Co., Pittsburg, Pa.

Oil Refining Plants

Petroleum Iron Works Co., Sharon, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Struthers-Wells Co., Warren, Pa.

Oiling Systems

Davenport Brick & Tile Co., 226 W. 3d St., Davenport, Iowa.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Lunkenheimer Co., Cincinnati, Ohio.
National Valve & Mfg. Co., Pittsburg, Pa.
Powell Co., Wm., Cincinnati, Ohio.

Packing

American Mfg. Co., 65 Wall St., New York.
Boston Belting Co., Boston, Mass.
Conveying Weigher Co., 92 West St., New York.
Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Goodrich Co., B. F., Akron, Ohio.
Jenkins Bros., New York.
Johns-Manville Co., H. W., 100 William St., New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
Revere Rubber Co., Boston, Mass.
Zelnicker Supply Co., Walter A., 406 No. 4th St., St. Louis, Mo.

Packing (Leather)

Dudgeon, Richard, 24 Columbia St., New York.
Watson-Stillman Co., 58 Church St., New York.

Packing (Metallic)

Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Johns-Manville Co., H. W., 100 William St., New York.
Power Specialty Co., 111 Broadway, New York.

Packing (Water-Pipe)

American Mfg. Co., 65 Wall St., New York.
Broderick Bascom Rope Co., St. Louis, Mo.
Leadite Co., Inc., Land Title Bldg., Philadelphia, Pa.
Revere Rubber Co., Boston, Mass.

Paints and Metal Coatings

American Paint Mfg. Co., 41-47 Hollingsworth St., Mat-tapan, Boston, Mass.
Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
Clinton Metallic Paint Co. Clinton, N. Y.
Dexter Bros. Co., 105 Broad St., Boston, Mass.
Dixon Crucible Co., Jos., Jersey City, N. J.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Elaterite Paint & Mfg. Co., Des Moines, Iowa.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Glidden Varnish Co., Cleveland, Ohio.
Minwax Co., 1123 Broadway, New York.
National Paint Works, 100 William St., New York.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Rinald Bros., 1146 No. Hancock St., Philadelphia, Pa.
Standard Paint Co., 100 William St., New York.
Sterling Varnish Co., Pittsburg, Pa.
Toch Bros., 320 Fifth Ave., New York.

Mention "Engineering Record" when writing.

Paints (Asphalt)

American Asphaltum Rubber Co., 600-614 Harvester Bldg., Chicago, Ill.
American Paint Mfg. Co., 41-47 Hollingsworth St., Mat-tapan, Boston, Mass.
Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Bird & Co., J. A. & W., Boston, Mass.
Clinton Metallic Paint Co., Clinton, N. Y.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Glidden Varnish Co., Cleveland, Ohio.
Lunkenheimer Co., Cincinnati, Ohio.
Minwax Co., 1123 Broadway, New York.
National Paint Works, 100 William St., New York.
Standard Asphalt & Rubber Co., 205 La Salle St., Chi-cago, Ill.
Standard Paint Co., 100 William St., New York.
Toch Bros., 320 Fifth Ave., New York.

Paper (Drafting)

Kolesch & Co., 138 Fulton St., New York.
Mittineague Paper Co., Mittineague, Mass.
Williams, Brown & Earle, 916 Chestnut St., Phila., Pa.

Paving Joint Filler

American Asphaltum & Rubber Co., 600-614 Harvester Bldg., Chicago, Ill.
American Tar Co., Boston, Mass.
Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Barrett Mfg. Co., 17 Battery Pl., New York.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Iszard-Warren Co., 136 N. 12th St., Philadelphia, Pa.
Kettle River Quarries Co., Minneapolis, Minn.
Standard Asphalt & Rubber Co., Chicago.
Standard Oil Co., New York.
Texas Co. 17 Battery Pl., New York.

Pavements (See also Asphalt Paving)

Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Barron & Cole Co. 127 Franklin St., New York.
Blome Co., R. S., Unity Bldg., Chicago, Ill.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Indian Refining Co. First Nat'l Bank Bldg., Cincinnati.
Kettle River Quarries Co., Minneapolis, Minn.
McAvoy Vitrified Brick Co., 345 Arch St., Phila., Pa.
National Paving Brick Assn., Indianapolis, Ind.
Rockport Granite Co., Rockport, Mass.
Sicilian Asphalt Paving Co., 41 Park Row, New York.
United Paving Co., Atlantic City, N. J.
U. S. Wood Preserving Co., 165 Broadway, N. Y.

Peat Collectors

American Process Co., 68 William St., New York.
Conveying Weigher Co., 92 West St., New York.

Penstocks

D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
Excelsior Wooden Pipe Co., 916 Balboa Bldg., San Francisco, Cal.
Graver Tank Works, Wm., East Chicago, Ind.
Lackawanna Steel Co., 2 Rector St., New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Mitchell & Tappen, 122 Liberty St., New York.
Pacific Coast Pipe Co., Seattle, Wash.
Petroleum Iron Works Co., Sharon, Pa.

Mention "Engineering Record" when writing.

Platt Iron Works Co., Dayton, Ohio.
Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Struthers-Wells Co., Warren, Pa.
Treadwell Construction Co., Midland, Pa.
U. S. Wind Engine & Pump Co., Batavia, Ill.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Perforated Metals

Allis-Chalmers Co., Milwaukee, Wis.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Pile Driving Machinery

American Hoist & Derrick Co., St. Paul, Minn.
Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Edson Mfg. Co. 257 Atlantic Ave., Boston, Mass.
Flory Mfg. Co., S., Bangor, Pa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Ingersoll-Rand Co., 11 Broadway, New York.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
McKiernan Drill Co., 115 Broadway, New York.
Maine Electric Co., Portland, Me.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
New York Cableway & Engineering Co., 2 Rector St., New York.
Parker, F. J., Pennsylvania Bldg., Phila., Pa.
Union Iron Works, Hoboken, N. J.
Vulcan Iron Works Chicago, Ill.
Wardwell, Frederick S., Stamford, Conn.

Pile Protection

Lackawanna Steel Co., 2 Rector St., New York.
Lock Joint Pipe Co., 165 Broadway, New York.
Minwax Co., 1123 Broadway, New York.
Monks-Ripley Pile Co., 82 Beaver St., New York.

Pile Shoes

Dobbie Foundry Machine Co., Niagara Falls, N. Y.
Janney, Steinmetz & Co., Philadelphia, Pa.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Patterson Co. W. W., Pittsburg, Pa.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Vulcan Iron Works Chicago, Ill.

Piles (Concrete)

Carey Construction Co., 211 Lennox Bldg., Cleveland, O.
Foundation Co., 115 Broadway, New York.
Hennebique Construction Co. 1170 Broadway, New York.
MacArthur Concrete Pile Co., 11 Pine St., New York.
Monks-Ripley Pile Co., 82 Beaver St., New York.
Raymond Concrete Pile Co., New York & Chicago.

Piles (Creosoted)

American Creosoting Works, New Orleans, La.
Barber Asphalt Paving Co., Maurer, N. J.
Gulfport Creosoting Co., Gulfport, Miss.
Kettle River Quarries Co., Minneapolis, Minn.
Southern Wood Preserving Co., Atlanta, Ga.
Wyckoff Pipe & Creosoting Co., 50 Church St., New York.

Piles (Timber)

Foundation Co., 115 Broadway, New York.

Mention "Engineering Record" when writing.

Piling (Interlocking Steel)

Carnegie Steel Co., Pittsburg, Pa.
Jackson, Geo. W., 754-756 Jackson Blvd., Chicago, Ill.
Jones & Laughlin Steel Co. Pittsburg, Pa.
Lackawanna Steel Co., 2 Rector St., New York.

Pipe (Cast-Iron)

American Cast-Iron Pipe Co., Birmingham, Ala.
Builders' Iron Foundry, Providence, R. I.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Dimmick Pipe Co. Birmingham, Ala.
Donaldson Iron Co., Emaus, Lehigh Co., Pa.
Fox & Co., John, 253 Broadway, New York.
Kellogg Co. M. W., 50 Church St., New York.
Massillon Iron & Steel Co., Massillon, Ohio.
McWane Pipe Works, 220 Broadway, N. Y.
Milliken Bros., Milliken, N. Y.
Russel Wheel & Foundry Co., Detroit, Mich.
Standard Cast-Iron Pipe and Foundry Co., Bristol, Pa.
U. S. Cast-Iron Pipe & Foundry Co., New York.
Vulcan Iron Works, Wilkes-Barre, Pa.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pipe (Concrete)

American Cement Machinery Co., St. Louis, Mo.
American Pipe & Construction Co., 112 North Broad St., Philadelphia, Pa.
Ash, John Wm., Austell, Ga.
Ransome, Ernest L., 11 Broadway, New York.
Reinforced Concrete Pipe Co., Jackson, Mich.

Pipe (Galvanized Iron)

American Rolling Mill Co., Middletown, Ohio.
Berger Mfg. Co., Canton, Ohio.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Lupton's Sons Co. David, Allegheny Ave. & Witte St., Philadelphia, Pa.
Maginnis, P., Kimball, Neb.
Milliken Bros., Milliken, N. Y.
New York Blower Co., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Pipe (Lead)

Clow & Sons, James B., 342 Franklin St., Chicago, Ill.

Pipe (Lock-Bar)

East Jersey Pipe Co., 50 Church St., New York.
Gillespie Co., T. A., Westinghouse Bldg., Pittsburg, Pa.

Pipe (Reinforced Concrete)

American Cement Machinery Co., St. Louis, Mo.
Carey Construction Co., 211 Lennox Bldg., Cleveland, O.
Hennebique Construction Co., 1170 Broadway, New York.
Lock Joint Pipe Co., 165 Broadway, New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Ransome Ernest L., 11 Broadway, New York.
Reinforced Concrete Pipe Co., Jackson, Mich.
Trussed Concrete Steel Co., Detroit, Mich.

Pipe (Riveted Steel)

American Bridge Co., 30 Church St., New York.
American Spiral Pipe Works, Chicago, Ill.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Carroll-Porter Boiler & Tank Co., 907 Empire Bldg., Pittsburg, Pa.

Mention "Engineering Record" when writing.

Chicago Bridge & Iron Works, Chicago, Ill.
Clinton Bridge & Iron Works, Clinton, Iowa.
Cockburn Barrow & Machine Co., 30 Church St., New York.

East Jersey Pipe Co., 50 Church St., New York.
Ellicott Machine Co., Bush & Severn Sts., Baltimore.
Graver Tank Works, Wm., East Chicago, Ind.
Gillespie Co., T. A., Westinghouse Bldg., Pittsburg, Pa.
Lake Erie Engineering Works, Buffalo, N. Y.
McNeil & Bros., Jas., Pittsburg, Pa.
Milliken Bros., Milliken, N. Y.
Petroleum Iron Works Co., Sharon, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Scaife & Sons Co., Wm. B., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Smith & Son Co. Samuel, Paterson, N. J.
Struthers-Wells Co., Warren, Pa.
Treadwell Construction Co., Midland, Pa.
Tippett & Wood, Phillipsburg, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Pipe (Steel)

American Spiral Pipe Works, Chicago, Ill.
Chicago Bridge & Iron Works, Chicago, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Graver Tank Works, Wm., East Chicago, Ind.
Gillespie Co., T. A., Westinghouse Bldg., Pittsburg, Pa.
Kellogg Co., M. W., 50 Church St. New York.
Lake Erie Engineering Works, Buffalo, N. Y.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Marine Metal & Supply Co., 167 South St., New York.
Milliken Bros., Milliken, N. Y.
National Valve & Mfg. Co., Pittsburg, Pa.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Pipe (Vitrified Clay and Sewer)

Blackmer & Post Pipe Co., St. Louis, Mo.
Cannelton Sewer Pipe Co., Cannelton, Ind.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Davenport Brick & Tile Co., 226 W. 3d St., Davenport, Iowa.
Eastern Asphalt Supply Co., 115 Broadway, N. Y.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Evans & Howard Fire Brick Co., St. Louis, Mo.
Lock Joint Pipe Co., 165 Broadway, New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
National Fire Proofing Co., Pittsburg, Pa.
N. Y. State Sewer Pipe Co., Rochester, N. Y.
Pacific Tank & Pipe Co., 318 Market St., San Francisco, Cal.
Warner Co., Charles, Wilmington, Del.
Western Clay Products, 815 Wall St., Kansas City, Mo.

Pipe (Wood)

American District Steam Co., Lockport, N. Y.
Excelsior Wooden Pipe Co., 916 Balboa Bldg., San Francisco, Cal.
Michigan Pipe Co., Bay City, Mich.
Pacific Coast Pipe Co., Seattle, Wash.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Portland Wood Pipe Co., Portland, Ore.
Washington Pipe & Foundry Co., Tacoma, Wash.

Mention "Engineering Record" when writing.

Wyckoff & Sons Co., A., Elmira, N. Y.
Wyckoff Pipe & Creosoting Co., 50 Church St., N. Y.

Pipe (Wrought Iron)

American District Steam Co., Lockport, N. Y.
American Pipe & Construction Co., Philadelphia, Pa.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Marine Metal & Supply Co. 167 South St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Milliken Bros., Milliken, N. Y.
National Valve & Mfg. Co., Pittsburg, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
United States Equipment Co., Fisher Bldg., Chicago.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Pipe and Boiler Coverings

Clinton Metallic Paint Co., Clinton, N. Y.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Johns-Manville Co., H. W., 100 William St., New York.
Kellogg Co., M. W., 50 Church St., New York.
Michigan Pipe Co. Bay City, Mich.
Wyckoff & Sons Co., A., Elmira, N. Y.

Pipe Bends

American Cast-Iron Pipe Co., Birmingham, Ala.
Builders Iron Foundry, Providence, R. I.
East Jersey Pipe Co., 50 Church St., New York.
Kellogg Co., M. W., 50 Church St., New York.
National Pipe Bending Co., New Haven, Conn.
National Valve & Mfg. Co., Pittsburg, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Topping, Howell, 52 Church St., New York.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Pipe-Bending Machines

Dudgeon, Richard, 24 Columbia St., New York.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Pipe Cutters

Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Smith Mfg. Co., A. P., Passaic Ave., Newark, N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Waterworks Equipment Co., 50 Church St., New York.
Wickes Bros., 90 West St., New York.

Pipe Dip

American Asphaltum & Rubber Co., Chicago, Ill.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Minwax Co., 1123 Broadway, New York.
Standard Asphalt & Rubber Co., Chicago, Ill.
Texas Co., 17 Battery Pl., New York.

Pipe Fittings

American Cast-Iron Pipe Co., Birmingham, Ala.
American Spiral Pipe Works, Chicago, Ill.
Builders' Iron Foundry, Providence, R. I.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Dimmick Pipe Co., Birmingham, Ala.
Donaldson Iron Co., Emaus, Lehigh Co., Pa.
Fox & Co., John, 253 Broadway, New York.
Marine Metal & Supply Co., 167 South St., New York.
Massillon Iron & Steel Co., Massillon, Ohio.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Milliken Bros., Milliken, N. Y.
National Valve & Mfg. Co., Pittsburg, Pa.

Mention "Engineering Record" when writing.

Standard Cast-Iron Pipe & Foundry Co., Bristol, Pa.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Pipe Tapping Machines

Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Smith Mfg. Co., A. P., Passaic Ave., Newark, N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Waterworks Equipment Co., 50 Church St., New York.

Pipe-Joint Compounds

Dixon Crucible Co., Jos., Jersey City, N. J.
Johns-Manville Co., H. W., 100 William St., New York.
Minwax Co., 1123 Broadway, New York.
Obermayer Co., S., Cincinnati, Ohio.

Pipe-Joints

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Leadite Co., Inc., Land Title Bldg., Philadelphia, Pa.
Kellogg Co., M. W., 50 Church St., New York.
National Valve & Mfg. Co., Pittsburg, Pa.

Pipe-Line Supplies

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Fox & Co., John, 253 Broadway, New York.
Leadite Co., Inc., Land Title Bldg., Philadelphia, Pa.
McCoy Co., Henry J., 65-67 Dey St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Powell Co., Wm., Cincinnati, Ohio.
Union Iron Works, Hoboken, N. J.

Piping Contractors

Cuozzo, Donato, Park Row Bldg., New York.
Excelsior Wooden Pipe Co., San Francisco, Cal.
Kellogg Co., M. W., 50 Church St., New York.
National Valve & Mfg. Co., Pittsburg, Pa.
Portland Wood Pipe Co., Portland, Ore.
United Paving Co., Atlantic City, N. J.
Wardwell, Frederick S., Stamford, Conn.

Pitch

Barrett Mfg. Co., 17 Battery Pl., New York.
Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
Eastern Asphalt Supply Co., 115 Broadway, New York.

Plaster

Hydrolithic Cement Co., 138 Jackson Boul., Chicago.

Plates (Steel)

American Bridge Co., 30 Church St., New York.
Carnegie Steel Co., Pittsburg, Pa.
Kratzer & Co., W. N., Pittsburg, Pa.
Lackawanna Steel Co., 2 Rector St., New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Milliken Bros., Milliken, N. Y.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Riverside Bridge Co., Martins Ferry, Ohio.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Virginia Bridge & Iron Co., Roanoke, Va.
Whitehead & Kales Iron Works, Detroit, Mich.

Pliers (Wire-Cutting)

Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Wiebusch & Hilger, 106-110 Lafayette St., New York.

Mention "Engineering Record" when writing.

Plows (See Road Machinery)

Plumbers' Materials (Sanitary Specialties, Etc.)

Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Merritt & Co., 125 Front St., Camden, N. J.

Pneumatic Tools

Allen, John F., 370-372 Gerard Ave., New York.
Fairbanks Co., New York & Chicago.
Independent Pneumatic Tool Co., 1307 Michigan Ave., Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.

Poles and Posts (Iron, Steel, Trolley, Etc.)

Carnegie Steel Co., Pittsburg, Pa.
Franklin Steel Co., Franklin, Pa.
Gulfport Creosoting Co., Gulfport, Miss.
Milliken Bros., Milliken, N. Y.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Terry & Tench, New York.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Wyckoff Pipe & Creosoting Co., 50 Church St., New York.

Portland Cement

Allentown Portland Cement Co., Allentown, Pa.
Alpha Portland Cement Co., Easton, Pa.
Alsen American Portland Cement Works, 45 Broadway, New York.
American Cement Co., 603-10 Penna. Bldg., Philadelphia.
Atlas Portland Cement Co., 30 Broad St., New York.
Chicago Portland Cement Co., Chicago, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Coplay Cement Mfg. Co., Penn Bldg., Philadelphia, Pa.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Edison Portland Cement Co., St. James Bldg., New York.
French & Co., Samuel H., Philadelphia, Pa.
Glens Falls Portland Cement Co., Glens Falls, N. Y.
Harrison Waterproofing Materials Co., 30 Church St., New York.
Hartranft Cement Co., Wm. G., Real Estate Trust Bldg., Philadelphia, Pa.
Helderberg Cement Co., 78 State St., Albany, N. Y.
Hydrolithic Cement Co., 138 Jackson Blvd., Chicago, Ill.
Ironton Portland Cement Co., Ironton, Ohio.
Lawrence Cement Co., 1 Broadway, New York.
Lehigh Portland Cement Co., Allentown, Pa.
Marquette Cement Mfg. Co., Marquette Bldg., Chicago.
New Castle Portland Cement Co., New Castle, Pa.
Peninsula Portland Cement Co., Jackson, Mich.
Pennsylvania Cement Co., 26 Cortlandt St. New York.
Universal Portland Cement Co., 115 Adams St., Chicago.
Vulcanite Portland Cement Co., 200 Fifth Ave., N. Y.
Warner Co., Charles, Wilmington, Del.

Pots, Melting (See Kettles, Melting)

Powder (See Also Explosives)

Bond Co., Harold L., 383-391 Atlantic Ave. Boston, Mass.
Du Pont de Nemours Powder Co., E. I., Wilmington, Del.
Keystone Powder Mfg. Co., Emporium, Pa.
National Powder Co., 200 Fifth Ave., New York.

Mention "Engineering Record" when writing.

New York Blasting & Supply Co., 11 Broadway, N. Y.
Sinnamahoning Powder Co., Emporium, Pa.

Power Plant Piping

Excelsior Wooden Pipe Co., 916 Balboa Bldg., San Francisco, Cal.
Kellogg Co., M. W., 50 Church St., New York.
Kidde, Walter, 140 Cedar St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
National Valve & Mfg. Co., Pittsburg, Pa.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Portland Wood Pipe Co., Portland, Ore.
United Paving Co., Atlantic City, N. J.

Power Transmission Machinery

Allis-Chalmers Co., Milwaukee, Wis.
American Mfg. Co., 65 Wall St., New York.
Channon Co., H., Chicago, Ill.
Cresson Co., Geo. V., Allegheny Ave., West of 17 St., Philadelphia, Pa.
General Electric Co., Schenectady, N. Y.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Kellogg Co., M. W., 50 Church St., New York.
Morse Chain Co., Ithaca, N. Y.
Platt Iron Works Co., Dayton, Ohio.
Power & Mining Machinery Co., Milwaukee, Wis.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Presses (Hydraulic)

Abenague Machine Works, Westminster Station, Vt.
Dudgeon, Richard, 24 Columbia St., New York.
Dunning, W. D., Syracuse, N. Y.
Lake Erie Engineering Works, Buffalo, N. Y.
Morris Co., I. P., Philadelphia, Pa.
Platt Iron Works Co., Dayton, Ohio.
Watson-Stillman Co., 58 Church St., New York.

Presses (Screw)

American Process Co., 68 William St., New York.
Dunning, W. D., Syracuse, N. Y.
Leader Foundry & Machine Co., Quincy, Ill.

Producers, Gas (See Gas Producers)

Pullers (Car)

Hunt Co., C. W., West New Brighton, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Pulleys

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Cresson Co., Geo. V., Allegheny Ave., West of 17th St., Philadelphia, Pa.
Channon Co., H., Chicago, Ill.
Eureka Stone & Ore Crusher Co., Cedar Rapids, Iowa.
Fairbanks Co., New York & Chicago.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Platt Iron Works Co., Dayton, Ohio.
Power & Mining Machinery Co., Milwaukee, Wis.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Mention "Engineering Record" when writing.

Pulverizers

Advance Pump & Compressor Co., Battle Creek, Mich.
Allis-Chalmers Co., Milwaukee, Wis.
American Pulverizer Co., St. Louis, Mo.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Bradley Pulverizer Co., 92 State St., Boston, Mass.
Eureka Stone & Ore Crushing Co., Cedar Rapids, Iowa.
International Sand-Lime Brick & Machinery Co., 90
West St., New York.
Kent Mill Co., 170 Broadway, New York.
Lehigh Car Wheel & Axle Works, Catasauqua, Pa.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Prosser & Son, Thos., 15 Gold St., New York.
Raymond Bros. Impact Pulverizer Co., 1500 Harison St.,
Chicago, Ill.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.
Williams Patent Crusher & Pulverizer Co., Chicago, Ill.

Pumps (Centrifugal)

Abenaque Machine Works, Westminster Station, Vt.
Advance Pump & Compressor Co., Battle Creek, Mich.
Alberger Condenser Co., 140 Cedar St., New York.
Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Buffalo Steam Pump Co., Buffalo, N. Y.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Channon Co., H., Chicago, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., Salem, Ohio.
D'Olier Engineering Co., 119-121 S. 11th St., Philadelphia.
Dow Pumping Engine Co., Geo. E., 179 First St. San
Francisco, Cal.
Emerson Steam Pump Co., Alexandria, Va.
Erie Pump & Engine Works, Erie, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Goulds Mfg. Co., Seneca Falls, N. Y.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Hush, H. J., 39-41 Cortlandt St., New York.
International Steam Pump Co., 115 Broadway, New York.
Lawrence Pump & Engine Co., Lawrence, Mass.
Lea Equipment Co., 90 West St., New York.
McCoy Co., Henry J., 65-67 Dey St., New York.
Mietz, August, 128-138 Mott St., New York.
Morris Co., I. P., Philadelphia, Pa.
Morris Machine Works, Baldwinsville, N. Y.
Pacific Tank & Pipe Co., San Francisco, Cal.
Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
Platt Iron Works Co., Dayton, Ohio.
Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
Rider-Ericsson Engine Co., 35 Warren St., New York.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Taylor Iron & Steel Co., High Bridge, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chi-
cago, Ill.
Wheeler, C. H. Mfg. Co., Philadelphia, Pa.
Wickes Bros., 90 West St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pumps (Deep Well)

Abenaque Machine Works, Westminster Station, Vt.
Advance Pump & Compressor Co., Battle Creek, Mich.
American Well Works, Aurora, Ill.

Mention "Engineering Record" when writing.

Artesian Well & Supply Co., Providence, R. I.
 Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Builders' Material Supply Co., 301-335 Scarritt Bldg.,
 Kansas City, Mo.
 Channon Co., H., Chicago, Ill.
 Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
 Dean Bros. Steam Pump Works, Indianapolis, Ind.
 Deming Co., Salem, Ohio.
 Dow Pumping Engine Co., Geo. E., 179 First St., San
 Francisco, Cal.
 Epping-Carpenter Co., Pittsburg, Pa.
 Fairbanks Co., New York & Chicago.
 Fairbanks, Morse & Co., Chicago, Ill.
 Flint & Walling Mfg. Co., Kendallville, Ind.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hush, H. J., 39-41 Cortlandt St., New York.
 Ingersoll-Rand Co., 11 Broadway, New York.
 International Steam Pump Co., 115 Broadway, New York.
 Keystone Driller Co., Beaver Falls, Pa.
 Meitz, August, 128-138 Mott St., New York.
 Platt Iron Works Co., Dayton, Ohio.
 Rider-Ericsson Engine Co., 35 Warren St., New York.
 Union Steam Pump Co., Battle Creek, Mich.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.
 U. S. Wind Engine & Pump Co., Batavia, Ill.
 Wickes Bros., 90 West St., New York.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.

Pumps (Diaphragm)

Abenague Machine Works, Westminster Station, Vt.
 Advance Pump & Compressor Co., Battle Creek, Mich.
 Bond Co., Harold L., 383-391 Atlantic Ave, Boston, Mass.
 Braender, Phillip, 143 West 125th St., New York.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Channon Co., H., Chicago, Ill.
 Deming Co., Salem, Ohio.
 Edson Mfg. Co., 257 Atlantic Ave., Boston, Mass.
 Fairbanks Co., New York & Chicago.
 Fairbanks, Morse & Co., Chicago, Ill.
 Fuller & Johnson Mfg. Co., 508 Galena St., Madison, Wis.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 International Steam Pump Co., 115 Broadway, New York.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Merritt & Co., 125 Front St., Camden, N. J.
 Parker, A. A., Waterford, N. Y.
 Platt Iron Works Co., Dayton, Ohio.

Pumps (Dredging)

Advance Pump & Compressor Co., Battle Creek, Mich.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Builders' Material Supply Co., 301-335 Scarritt Bldg.,
 Kansas City, Mo.
 Channon Co., H., Chicago, Ill.
 Deming Co., Salem, Ohio.
 Dow Pumping Engine Co., Geo. E., 179 First St., San
 Francisco, Cal.
 Edson Mfg. Co., 257 Atlantic Ave., Boston, Mass.
 Ellicott Machine Co., Bush & Severn Sts., Baltimore.
 Erie Pump & Engine Works, Erie, Pa.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hough Co., W. B. Monadnock Block, Chicago, Ill.
 International Steam Pump Co., 115 Broadway, New York.
 Lawrence Pump & Engine Co., Lawrence, Mass.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Morris Machine Works, Baldwinsville, N. Y.

Mention "Engineering Record" when writing.

Platt Iron Works Co., Dayton, Ohio.
Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pumps (Mine)

Advance Pumps & Compressor Co., Battle Creek, Mich.
Alberger Condenser Co., 140 Cedar St., New York.
Alberger Pump Co., 140 Cedar St., New York.
Allis-Chalmers Co., Milwaukee, Wis.
Ansonia Mfg. Co., 30 Church St., New York.
Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
Blakeslee Mfg. Co., Du Quoin, Ill.
Buffalo Steam Pump Co., Buffalo, N. Y.
Channon Co., H., Chicago, Ill.
Dean Bros Steam Pump Works, Indianapolis, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., Salem, Ohio.
D'Olier Engineering Co., 119-121 S. 11th St., Philadelphia.
Dow Pumping Engine Co., Geo. E., San Francisco, Cal.
Edson Mfg. Co., 257 Atlantic Ave., Boston, Mass.
Emerson Steam Pump Co., Alexandria, Va.
Epping-Carpenter Co., Pittsburg, Pa.
Erie Pump & Engine Works, Erie, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Goulds Mfg. Co., Seneca Falls, N. Y.
International Steam Pump Co., 115 Broadway, New York.
Jeansville Iron Works Co., Hazleton, Pa.
Lawrence Pump & Engine Co., Lawrence, Mass.
Lea Equipment Co., 90 West St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Mietz, August, 128-138 Mott St., New York.
Morris Machine Works, Baldwinsville, N. Y.
Pacific Tank & Pipe Co., 318 Market St., San Francisco, Cal.
Platt Iron Works Co., Dayton, Ohio.
Power & Mining Machinery Co., Milwaukee, Wis.
Pulsometer Steam Pump Co., 16 Battery Pl., New York.
Union Steam Pump Co., Battle Creek, Mich.
United States Equipment Co., Chicago, Ill.
Wickes Bros., 90 West St., New York.
Wood Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pumps (Operated by Air)

Abenague Machine Works, Westminster Station, Vt.
Advance Pump & Compressor Co., Battle Creek, Mich.
American Well Works, Aurora, Ill.
Ansonia Mfg. Co., 30 Church St., New York.
Blakeslee Mfg. Co., Du Quoin, Ill.
Buffalo Steam Pump Co., Buffalo, N. Y.
Channon Co., H., Chicago, Ill.
Dean Bros. Steam Pump Works, Indianapolis, Ind.
Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
Epping-Carpenter Co., Pittsburg, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Goulds Mfg. Co., Seneca Falls, N. Y.
Ingersoll-Rand Co., 11 Broadway, New York.
International Steam Pump Co., 115 Broadway, New York.
Jeansville Iron Works Co., Hazleton, Pa.
Merritt & Co., 125 Front St., Camden, N. J.
Rider-Ericsson Engine Co., 35 Warren St., New York.
Union Steam Pump Co., Battle Creek, Mich.

Pumps (Rotary)

Abenague Machine Works, Westminster Station, Vt.
Advance Pump & Compressor Co., Battle Creek, Mich.

Mention "Engineering Record" when writing.

American Well Works, Aurora, Ill.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Channon Co., H., Chicago, Ill.
 Deming Co., Salem, Ohio.
 Emerson Steam Pump Co., Alexandria, Va.
 Fairbanks, Morse & Co., Chicago, Ill.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 International Steam Pump Co., 115 Broadway, New York.
 Lawrence Pump & Engine Co., Lawrence, Mass.
 Pacific Tank & Pipe Co., 318 Market St., San Francisco, Cal.
 Platt Iron Works Co., Dayton, Ohio.
 Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
 Southwark Foundry & Machine Co., Philadelphia, Pa.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wheeler, C. H., Mfg. Co., Philadelphia, Pa.

Pumps (Sand)

Advance Pump & Compressor Co., Battle Creek, Mich.
 Allis-Chalmers Co., Milwaukee, Wis.
 American Well Works, Aurora, Ill.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Builders Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
 Channon Co., H., Chicago, Ill.
 Cockburn Barrow & Machine Co., 30 Church St., N. Y.
 Ellicott Machine Co., Bush & Severn Sts., Baltimore.
 Emerson Steam Pump Co., Alexandria, Va.
 Erie Pump & Engine Works, Erie, Pa.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 International Steam Pump Co., 115 Broadway, New York.
 Keystone Driller Co., Beaver Falls, Pa.
 Lawrence Pump & Engine Co., Lawrence, Mass.
 Marine Metal & Supply Co., 167 South St., New York.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 65 & 67 Dey St., New York.
 Morris Machine Works, Baldwinsville, N. Y.
 Pacific Tank & Pipe Co., 318 Market St., San Francisco, Cal.
 Parker, A. A., Waterford, N. Y.
 Platt Iron Works, Dayton, Ohio.
 Pulsometer Steam Pump Co., 16 Battery Pl., New York.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pumps (Steam and Power)

Advance Pump & Compressor Co., Battle Creek, Mich.
 Allis-Chalmers Co., Milwaukee, Wis.
 Artesian Well & Supply Co., Providence, R. I.
 Baldwin, Wm. J., World Bldg., New York.
 Blakeslee Mfg. Co., Du Quoin, Ill.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Burr, E. M., Champaign, Ill.
 Channon Co., H., Chicago, Ill.
 Dean Bros. Steam Pump Works, Indianapolis, Ind.
 Deming Co., Salem, Ohio.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Dudgeon, Richard, 24 Columbia St., New York.
 Emerson Steam Pump Co., Alexandria, Va.
 Epping-Carpenter Co., Pittsburg, Pa.

Mention "Engineering Record" when writing.

Erie Pump & Engine Works, Erie, Pa.
 Fairbanks, Morse & Co., Chicago, Ill.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 International Steam Pump Co., 115 Broadway, New York.
 Jeansville Iron Works Co., Hazleton, Pa.
 McCoy Co., Henry J., 65 & 67 Dey St., New York.
 McDowell & Co., Grant & Western Aves., Allegheny, Pa.
 Parker, A. A., Waterford, N. Y.
 Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
 Platt Iron Works Co., Dayton, Ohio.
 Prescott Steam Pump Co., Milwaukee, Wis.
 Union Steam Pump Co., Battle Creek, Mich.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Walker Mfg. Co., Fenton, Mich.
 Wheeler, C. H., Mfg. Co., Philadelphia, Pa.
 Wickes Bros., 90 West St., New York.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pumps (Turbine)

Advance Pump & Compressor Co., Battle Creek, Mich.
 Alberger Condenser Co., 140 Cedar St., New York.
 Alberger Pump Co., 140 Cedar St., New York.
 Allis-Chalmers Co., Milwaukee, Wis.
 Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
 Blakeslee Mfg. Co., Du Quoin, Ill.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
 De Laval Steam Turbine Co., Trenton, N. J.
 D'Olier Engineering Co., 119-121 S. 11th St., Philadelphia, Pa.
 Foos Gas Engine Co., Springfield, Ohio.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 International Steam Pump Co., 115 Broadway, New York.
 Jeansville Iron Works Co., Hazleton, Pa.
 Lawrence Pump & Engine Co., Lawrence, Mass.
 Lea Equipment Co., 90 West St., New York.
 McCoy Co., Henry J., 65 & 67 Dey St., New York.
 Morris Co., I. P., Philadelphia, Pa.
 Morris Machine Works, Baldwinsville, N. Y.
 Platt Iron Works Co., Dayton, Ohio.
 Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
 Rider-Eicsson Engine Co., 35 Warren St., New York.
 Southwark Fdry & Mch Co., Philadelphia, Pa.
 Watson-Stillman Co., 58 Church St., New York.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pumps (Vacuum)

Advance Pump & Compressor Co., Battle Creek, Mich.
 Alberger Condenser Co., 140 Cedar St., New York.
 Alberger Pump Co., 140 Cedar St., New York.
 American Air Compressor Works, 26 Cortlandt St., N. Y.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Dean Bros. Steam Pump Works, Indianapolis, Ind.
 Deming Co., Salem, Ohio.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Emerson Steam Pump Co., Alexandria, Va.
 Epping-Carpenter Co., Pittsburg, Pa.
 Fairbanks, Morse & Co., Chicago, Ill.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 International Steam Pump Co., 115 Broadway, New York.

Mention "Engineering Record" when writing.

Jeansville Iron Works Co., Hazleton, Pa.
 Keystone Driller Co., Beaver Falls, Pa.
 Pacific Tank & Pipe Co., 318 Market St., San Francisco, Cal.
 Platt Iron Works Co., Dayton, Ohio.
 Prescott Steam Pump Co., Milwaukee, Wis.
 Union Steam Pump Co., Battle Creek, Mich.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wheeler, C. H., Mfg. Co., Philadelphia, Pa.
 Wickes Bros., 90 West St., New York.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pumps (Waterworks)

Abenague Machine Works, Westminster Station, Vt.
 Advance Pump & Compressor Co., Battle Creek, Mich.
 Alberger Condenser Co., 140 Cedar St., New York.
 Alberger Pump Co., 140 Cedar St., New York.
 Allis-Chalmers Co., Milwaukee, Wis.
 American Well Works, Aurora, Ill.
 Artesian Well & Supply Co., Providence, R. I.
 Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
 Baltimore Cooperage Co., 37 S. Howard St., Baltimore.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 De Laval Steam Turbine Co., Trenton, N. J.
 Deming Co., Salem, Ohio.
 D'Olier Engineering Co., 119-121 So. 11th St., Philadelphia, Pa.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Edson Mfg. Co., 257 Atlantic Ave., Boston, Mass.
 Epping-Carpenter Co., Pittsburg, Pa.
 Erie Pump & Engine Works, Erie, Pa.
 Fairbanks, Morse & Co., Chicago, Ill.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hush, H. J., 39-41 Cortlandt St., New York.
 Ingersoll-Rand Co., 11 Broadway, New York.
 International Steam Pump Co., 115 Broadway, New York.
 Jeansville Iron Works Co., Hazleton, Pa.
 Lake Erie Engineering Works, Buffalo, N. Y.
 McDowell & Co., Grant & Western Aves., Allegheny, Pa.
 Mietz, August, 128-133 Mott St., New York.
 Murray Iron Works Co., Burlington, Iowa.
 Platt Iron Works Co., Dayton, Ohio.
 Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
 Southwark Foundry & Machine Co., Philadelphia, Pa.
 Union Steam Pump Works, Battle Creek, Mich.
 Walker Mfg. Co., Fenton, Mich.

Pumps (Windmill)

Abenague Machine Works, Westminster Station, Vt.
 Advance Pump & Compressor Co., Battle Creek, Mich.
 Baltimore Cooperage Co., 37 S. Howard St., Baltimore.
 Deming Co., Salem, Ohio.
 Fairbanks, Morse & Co., Chicago, Ill.
 Flint & Walling Mfg. Co., Kendallville, Ind.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hush, H. J., 39 & 41 Cortlandt St., New York.
 U. S. Wind Engine & Pump Co., Batavia, Ill.

Punches (Beam and Angle)

Bertsch & Co., Cambridge City, Ind.
 Buffalo Forge Co., Buffalo, N. Y.
 Cockburn Barrow & Machine Co., 30 Church St., N. Y.
 Dudgeon, Richard, 24 Columbia St., New York.
 Pels & Co., Henry, 90 West St., New York.

Mention "Engineering Record" when writing.

Watson-Stillman Co., 58 Church St., New York.
Wickes Bros., 90 West St., New York.
Wiener Machinery Co., 50 Church St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Push Cars (See Cars, Hand and Push)

Quarry Bars

Ingersoll-Rand Co., 11 Broadway, New York.
Sullivan Machinery Co., Chicago, Ill.
Wood Drill Co., Paterson, N. J.

Quarry Machinery

Allis-Chalmers Co., Milwaukee, Wis.
American Air Compressor Works, 26 Cortlandt St., N. Y.
American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Channon Co., H., Chicago, Ill.
Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dake Engine Co., Grand Haven, Mich.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Flory Mfg. Co., S., Bangor, Pa.
Ingersoll-Rand Co., 11 Broadway, New York.
Longenecker & Co., Chas. W., 150 Nassau St., New York.
Maine Electric Co., Portland, Me.
Marine Metal & Supply Co., 167 South St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
New York Cableway & Engineering Co., 2 Rector St., New York.
New York Blasting Supply Co., 11 Broadway, N. Y.
Power & Mining Machinery Co., Milwaukee, Wis.
Pulsometer Steam Pump Co., 16 Battery Pl., New York.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Wickes Bros., 90 West St., New York.
Williamson Bros. Co., Philadelphia, Pa.
Wood Drill Co., Paterson, N. J.

Radiators

American Radiator Co., New York and Chicago.
Baldwin, Wm. J., World Bldg., New York.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Kewanee Boiler Co., Kewanee, Ill.
Smith Co., H. B., Westfield, Mass.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Rail Joints, Fastenings and Specialties

Carnegie Steel Co., Pittsbrg, Pa.
Goldschmidt Thermit Co., 90 West St., New York.
Lackawanna Steel Co., 2 Rector St., New York.
Pennsylvania Steel Co., Steelton, Pa.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 No. 4th St., St. Louis, Mo.

Railings, Guards, Fences, Etc.

Anchor Post Iron Works, 15 Church St., New York.
Fairbanks, Morse & Co., Chicago, Ill.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Railroad Track Supplies

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Channon Co., H., Chicago, Ill.
Chicago Scale Co., 1021 Jackson Boulevard, Chicago, Ill.

Mention "Engineering Record" when writing.

Fairbanks, Morse & Co., Chicago, Ill.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Pennsylvania Steel Co., Steelton, Pa.
Peteler Car Co., Minneapolis, Minn.
Union Iron Works, Hoboken, N. J.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 No. Fourth St.,
St. Louis, Mo.

Rails and Track

Carnegie Steel Co., Pittsburg, Pa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Lackawanna Steel Co., 2 Rector St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Ohio Ceramic Engrg. Co., Cleveland, Ohio.
Orenstein-Arthur Koppel Co., Pittsburg, Pa.
Pennsylvania Steel Co., Steelton, Pa.
Peteler Car Co., Minneapolis, Minn.
Stuebner Iron Works, G. L., Ft. of 12th St., L. I. City.
New York.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Union Iron Works, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chi-
cago, Ill.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 No. Fourth St., St.
Louis, Mo.

Rails, Second-Hand

Barron & Cole Co., 127 Franklin St., New York.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Marine Metal & Supply Co., 167 South St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Southern Iron & Equipment Co., Atlanta, Ga.
United States Equipment Co., 1201 Fisher Bldg., Chi-
cago, Ill.
Zelnicker Supply Co., Walter A., 406 No. Fourth St.,
St. Louis, Mo.

Railways, Industrial and Narrow-Gauge

Acme Equipment & Engineering Co., Cleveland, Ohio.
American Engineering & Construction Co., 789-791-793
Drexel Bldg., Philadelphia, Pa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Orenstein-Arthur Koppel Co., Pittsburg, Pa.
Peteler Car Co., Minneapolis, Minn.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Rate Controllers for Filters

Builders Iron Foundry, Providence, R. I.
Merritt & Co., 125 Front St., Camden, N. J.
New York Continental Jewell Filtration Co., 15 Broad
St., New York.
Norwood Engineering Co., Florence, Mass.
Simplex Valve & Meter Co., Philadelphia, Pa.

Reamers

Fairbanks Co., New York & Chicago.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Mention "Engineering Record" when writing.

Refrigerating Plants

Kidde, Walter, 140 Cedar St., New York.

Regulators (Steam)

Allis-Chalmers Co., Milwaukee, Wis.
American District Steam Co., Lockport, N. Y.
Foster Engineering Co., Newark, N. J.
Walworth Mfg Co., 128-136 Federal St., Boston, Mass.
Westinghouse Machine Co., Pittsburg, Pa.

Regulators (Water-Pressure)

Allis-Chalmers Co., Milwaukee, Wis.
Foster Engineering Co., Newark, N. J.
Pittsburg Meter Co., East Pittsburg, Pa.
Walworth Mtg. Co., 128-136 Federal St., Boston, Mass.

Reinforced Concrete Construction (See Concrete, Reinforced)

Reinforcement Steel for Concrete Work

Adjustable Steel Centering Co., Fond du Lac, Wis.
American Steel & Wire Co., Chicago, Ill.
American System of Reinforcing, 189 La Salle St., Chicago, Ill.
Belmont Iron Works, Philadelphia, Pa.
Buffalo Steel Co., Tonawanda, N. Y.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Calumet Steel Co., Chicago, Ill.
Carey Construction Co., 211 Lennox Bldg., Cleveland, O.
Carnegie Steel Co., Pittsburg, Pa.
Clinton Bridge & Iron Works, Clinton, Iowa.
Clinton Wire Cloth Co., Clinton, Mass.
Concrete Steel Co., 29 Broadway, N. Y.
Concrete-Steel Engrg. Co., Park Row Bldg., New York.
Corrugated Bar Co., 1410 Bank of Com. Bldg., St. Louis.
Franklin Steel Co., Franklin, Pa.
General Fireproofing Co., Youngstown, Ohio.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Inland Steel Co., Chicago, Ill.
Interlocking Steel Co., Cleveland, Ohio.
Janney, Steinmetz & Co., Philadelphia, Pa.
Kratzer & Co., W. N., Pittsburg, Pa.
Lackawanna Steel Co., 2 Rector St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Mitchell & Tappen, 122 Liberty St., New York.
National Wire Cloth Co., Sandusky, Ohio.
Pennsylvania Steel Works, Steelton, Pa.
Riverside Bridge Co., Martin's Ferry, Ohio.
Roebling Construction Co., 949 Broadway, New York.
Trussed Concrete Steel Co., Detroit, Mich.
Turner Construction Co., New York.

Riveting Hammers (See Pneumatic Tools)

Riveting Machines

Allen, John F., 370-372 Gerard Ave., New York.
Buffalo Forge Co., Buffalo, N. Y.
Cockburn Barrow & Machine Co., 30 Church St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Rivets

American Bridge Co., 30 Church St., New York.
Fairbanks Co., New York & Chicago.

Mention "Engineering Record" when writing.

Janney, Steinmetz & Co., Philadelphia, Pa.
Milliken Bros., Milliken, N. Y.
Pennsylvania Steel Co., Steelton, Pa.
Pittsburg Mfg. Co., Pittsburg, Pa.

Road Machinery

Abenaque Machine Works., Westminster Station, Vt.
Austin Mfg. Co., Chicago, Ill.
Austin-Western Co., Ltd., Chicago, Ill.
Avery Co., 984 Iowa St., Peoria, Ill.
Barrett Mfg. Co., 17 Battery Pl., New York.
Barron & Cole Co., 127 Franklin St., New York.
Buffalo Pitts Co., Buffalo, N. Y.
Buffalo Steam Roller Co., Buffalo, N. Y.
Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Farquhar Co., A. B., Box 704, York, Pa.
Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
Godwin, W. S., Box 95, Times Sq. Station, New York.
Good Roads Machinery Co., Kennett Square, Pa.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Iroquois Iron Works, Buffalo, N. Y.
Kelly-Springfield Road Roller Co., Springfield, Ohio.
Longenecker & Co., Chas. W., 150 Nassau St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
Studebaker Bros. Mfg. Co., So. Bend, Ind.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.
Thew Automatic Shovel Co., Lorain, Ohio.
Topping, Howell, 52 Church st., New York.
Troy Wagon Works Co., South Walnut St., Troy, Ohio.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Universal Road Machinery Co., 120 Liberty St., N. Y.

Road Oils and Preservatives (See Also Asphalt; Also Paving Joint Filler)

American Asphaltum & Rubber Co., Chicago.
American Tar Co., Boston, Mass.
Barber Asphalt Paving Co., Land Title Bldg., Phila. Pa.
Barrett Mfg. Co., 17 Battery Pl., New York.
Barron & Cole Co., 127 Franklin st., New York.
Eastern Asphalt Supply Co., 115 B'way, New York.
Gulf Refining Co., Frick Bldg. Annex, Pittsburg, Pa.
Indian Refining Co., 182 Natl. Bank Bldg., Cincinnati, O.
Standard Asphalt & Rubber Co., Chicago.
Standard Oil Co., of New York, 26 Broadway, N. Y.
Texas Co., 17 Battery Pl., New York.
Topping, Howell, 52 Church st., New York.

Road Rollers

Austin Mfg. Co., Chicago, Ill.
Austin-Western Co., Ltd., Chicago, Ill.
Avery Co., 984 Iowa St., Peoria, Ill.
Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Barron & Cole Co., 127 Franklin st., New York.
Buffalo Steam Roller Co., Buffalo, N. Y.
Case Threshing Machine Co., J. I., Racine, Wis.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Erie Machine Shops, 13th & Peach Sts., Erie, Pa.
Foote Concrete Machinery Co., 184 La Salle St., Chicago.
Good Roads Machinery Co., Kennett Sq., Pa.

Mention "Engineering Record" when writing.

Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Huber Mfg. Co., Marion, Ohio.
Iroquois Iron Works, Buffalo, N. Y.
Kelly-Springfield Road Roller Co., Springfield, Ohio.
Longenecker & Co., Chas. W., 150 Nassau St., N. Y.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.

Road Rollers (Horse)

Austin Mfg. Co., Chicago, Ill.
Austin-Western Co., Ltd., Chicago, Ill.
Barron & Cole Co., 127 Franklin St., New York.
Iroquois Iron Works, Buffalo, N. Y.
Longenecker & Co., Chas. W., 150 Nassau St., N. Y.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.

Rolling Mill Machinery

Lake Erie Engineering Works, Buffalo, N. Y.

Roofing

Amer. Asphaltum & Rubber Co., 600-614 Harvester Bldg., Chicago, Ill.
Asbestos Protected Metal Co., Canton, Mass.
Barber Asphalt Paving Co., Land Title Bldg., Phila. Pa.
Barrett Mfg. Co., 17 Battery Pl., New York.
Berger Mfg. Co., Canton, Ohio.
Bird & Co., J. A. & W., Boston, Mass.
Bird & Son, F. W., East Walpole, Mass.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Farwell, Ozmun, Kirk & Co., St. Paul Minn.
Garry Iron & Steel Co., Cleveland, Ohio.
Johns-Manville Co., H. W., 100 William St., New York.
Minwax Co., 1123 Broadway, New York.
Standard Paint Co., 100 William St., New York.
Warner Co., Charles, Wilmington, Del.

Roofing (Asphalt)

Amer. Asphaltum & Rubber Co., 600-614 Harvester Bldg., Chicago, Ill.
Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Bird & Co., J. A. & W., Boston, Mass.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Fairbanks, Morse & Co., Chicago, Ill.
Garry Iron & Steel Co., Cleveland, Ohio.
Indian Refining Co., First Natl. Bank Bldg., Cincinnati.
Johns-Manville Co., H. W., 100 William St., New York.
Minwax Co., 1123 Broadway, New York.
Standard Asphalt & Rubber Co., 205 La Salle St., Chicago, Ill.
Texas Co., 17 Battery Pl., New York.
Warner Co., Charles, Wilmington, Del.

Roofing (Gravel)

Amer. Asphaltum & Rubber Co., 600-614 Harvester Bldg., Chicago, Ill.
Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Barrett Mfg. Co., 17 Battery Pl., New York.
Bird & Co., J. A. & W., Boston, Mass.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Pittsburg Sand & Supply Co., Baden, Pa.
Warner Co., Charles, Wilmington, Del.

Roofs (See Bridges, Roofs, Etc.)

Rope (Manila)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.

Mention "Engineering Record" when writing.

American Mfg. Co., 65 Wall St., New York City.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Broderick & Bascom Rope Co., St. Louis, Mo.
 Brown Hoisting Machinery Co., Cleveland, Ohio.
 Builders Material Supply Co., 301-335 Scarritt Bldg.,
 Kansas City, Mo.
 Channon Co., H., Chicago, Ill.
 Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
 Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Hunt Co., C. W., West New Brighton, N. Y.
 Leschen & Sons Rope Co., St. Louis, Mo.
 Longenecker & Co., Chas. W., 150 Nassau St., New York.
 New York Blasting Supply Co., 11 Broadway, New York.
 Trenton Iron Co., Trenton, N. J.
 Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Rope (Transmission Power)

Allis-Chalmers Co. Milwaukee, Wis.
 American Mfg. Co., 65 Wall St., New York City.
 Broderick & Bascom Rope Co., St. Louis, Mo.
 Channon Co., H., Chicago, Ill.
 Cresson Co., Geo. V., Allegheny Ave., West of 17th
 St., Philadelphia, Pa.
 Hunt Co., C. W., West New Brighton, N. Y.
 Jones & Laughlin Steel Co., Pittsburg, Pa.
 Leschen & Sons Rope Co., St. Louis, Mo.
 Marine Metal & Supply Co., 167 South St., New York.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Stephens-Adamson Mfg. Co., Aurora, Ill.
 Trenton Iron Co., Trenton, N. J.
 Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Rope (Wire)

American Hoist & Derrick Co., St. Paul, Minn.
 American Steel & Wire Co., 115 Adams St., Chicago, Ill.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Broderick & Bascom Rope Co., St. Louis, Mo.
 Brown Hoisting Machinery Co., Cleveland, Ohio.
 Builders Material Supply Co., 301-335 Scarritt Bldg.,
 Kansas City, Mo.
 Channon Co., H., Chicago, Ill.
 Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
 Cresson Co., Geo. V., Allegheny Ave., west of 17th
 St., Philadelphia, Pa.
 Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Hunt Co., C. W., West New Brighton, N. Y.
 Leschen & Sons Rope Co. St. Louis, Mo.
 Longenecker & Co., Chas. W., 150 Nassau St., N. Y.
 Maine Electric Co., Portland, Me.
 Marine Metal & Supply Co., 167 South St., New York.
 New York Blasting Supply Co., 11 Broadway, New York.
 Roebling Sons Co., Jno. A., Trenton, N. J.
 Terry & Tench, New York.
 Trenton Iron Co., Trenton, N. J.

Rubber Boots (See Also Boots)

Goodrich Co., B. F., Akron, Ohio.
 Hundebly Manufacturing Co., 2021 Washington Ave.,
 North, Minneapolis.
 Mulconroy Co., 722 Arch St., Philadelphia, Pa.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 New York Blasting Supply Co., 11 Broadway, New York.
 Rubberhide Co., 212 Essex St., Boston, Mass.

Rules and Tapes (See Also Engineers' and Surveyors' Instruments and Supplies)

French, Arthur W., Worcester Polytechnic Institute,
 Worcester, Mass.

Mention "Engineering Record" when writing.

Iszard-Warren Co., 136 W. 12th St., Philadelphia, Pa.
Keuffel & Esser Co., Hoboken, N. J.
Kolesch & Co., 138 Fulton St., New York.
Wiebusch & Hilger, 106-110 Lafayette St., New York.
Williams, Brown & Earle, 916 Chestnut St., Phila., Pa.

Sand

New York Continental Jewell Filtration Co., 15 Broad St., New York.
Pittsburg Sand & Supply Co., Baden, Pa.
Warner Co., Charles, Wilmington, Del.

Sand-Blast Machines

Abenaque Machine Works, Westminster Station, Vt.

Sash Operating Apparatus

Drouve Co., G., Bridgeport, Conn.
Hitchings & Co., Elizabeth, N. J.
Lord & Burnham Co., Irvington, N. Y.
Lupton's Sons Co., David, Allegheny Ave. & Witte St., Philadelphia, Pa.
National Ventilating Co., 337 E 26th St., New York.

Saw-Mill Machinery

Abenaque Machine Works, Westminster Station, Vt.
Allis-Chalmers Co., Milwaukee, Wis.
Broderick & Bascom Rope Co., St. Louis, Mo.
Channon Co., H., Chicago, Ill.
Dake Engine Co., Grand Haven, Mich.
Drouve Co., G., Bridgeport, Conn.
Exeter Machine Works, Exeter, N. H.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Minneapolis Steel Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Newell A. T., 629 Brown Marx Bldg., Birmingham, Ala.

Scale Boxes

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Union Iron Works, Hoboken, N. J.

Scales (See Also Weighing Machinery)

Chicago Scale Co., 1021 Jackson Boulevard, Chicago, Ill.
Conveying Weigher Co., 92 West St., New York.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Hunt Co., C. W., West New Brighton, N. Y.
Richardson Scale Co., 3a Park Row, New York.
Standard Scale & Supply Co., 50-52 So. Canal St., Chicago, Ill.

Scarifiers (See Also Road Machinery)

Austin-Western Co., Ltd., Chicago, Ill.
Buffalo Steam Roller Co., Buffalo, N. Y.
Kelly-Springfield Road Roller Co., Springfield, Ohio.
Longenecker & Co., Chas. W., 150 Nassau St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
Universal Road Machinery Co., New York.

Schools and Colleges

American School of Correspondence, Chicago, Ill.
Clarkson School of Technology, Potsdam, N. Y.
International Correspondence Schools, Box 923 W., Scranton, Pa.

Mention "Engineering Record" when writing.

Lafayette College, Easton, Pa.
 Michigan College of Mines, Houghton, Mich.
 New York University, University Heights, New York.
 Pennsylvania Military College, Chester, Pa.
 Polytechnic Institute of Brooklyn, Brooklyn, N. Y.
 Rensselaer Polytechnic Institute, Troy, N. Y.
 Rose Polytechnic Institute, Terre Haute, Ind.
 Sheffield Scientific School, New Haven, Conn.
 Stevens School, Hoboken, N. J.
 Tufts College, Tufts College P. O., Mass.
 University of Illinois, Urbana, Ill.
 University of Pennsylvania, Philadelphia, Pa.
 University of Pittsburg, Pittsburg, Pa.
 University of Vermont, Burlington, Vt.
 Washington University, St. Louis, Mo.

Scrapers (Drag Line)

Browning Mfg. Co., Cleveland, Ohio.
 Bucyrus Co., South Milwaukee, Wis.
 Channon Co., H., Chicago, Ill.
 Hadsel Engineering Co., Scranton, Pa.
 Heyworth, James O., Harvester Bldg., Chicago, Ill.
 Lidgerwood Crawford Co., 1917 Fisher Bldg., Chicago.
 Monighan Machine Co., 2016 Carroll Ave., Chicago, Ill.

Scrapers, Road (See Also Road Machinery)

Austin Mfg. Co., Chicago, Ill.
 Barron & Cole Co., 127 Franklin St., N. Y.
 Good Roads Machinery Co., Kennett Sq., Pa.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
 United States Equipment Co., 1201 Fisher Bldg. Chicago Ill.

Screens (Sand, Coal, Gravel and Water)

Allis-Chalmers Co., Milwaukee, Wis.
 American Pulverizer Co., St. Louis, Mo.
 Austin-Western Co., Ltd., Chicago, Ill.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Channon Co., H., Chicago, Ill.
 Clinton Wire Cloth Co., Clinton, Mass.
 Eureka Stone & Ore Crusher Co., Cedar Rapids, Iowa.
 Hunt Co., C. W., West New Brighton, N. Y.
 Kent Mill Co., 170 Broadway, N. Y.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Raymond Bros. Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 Union Iron Works, Hoboken, N. J.
 Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Second-Hand Machinery and Supplies

Abenague Machine Works, Westminster Station, Vt.
 Architects' & Engineers' Supply Co., 1010 Grand Ave., Kansas City, Mo.
 Atlantic Equipment Co., 30 Church St., New York.
 Barron & Cole Co., 127 Franklin St., N. Y.
 Crimmins Contracting Co., Thos., 444 East 69th St., N.Y.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Leader Foundry & Machine Co., Quincy, Ill.
 Marine Metal & Supply Co., 167 South St., New York.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.

Mention "Engineering Record" when writing.

McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Parker, F. J., Pennsylvania Bldg., Philadelphia Pa.
Southern Iron & Equipment Co. Atlanta, Ga.
Troy Public Works Co., Utica, N. Y.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wickes Bros., 90 West St., New York.
Zelnicker Supply Co., Walter A., 406 No. Fourth St., St. Louis, Mo.

Separators (Cement, Plaster, Etc.)

American Pulverizer Co., St. Louis, Mo.
Nichols, E. M., Philadelphia, Pa.
Raymond Bros. Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.

Separators (Steam and Oil)

American Blower Co., Detroit, Mich.
American Radiator Co., New York & Chicago.
American District Steam Co., Lockport, N. Y.
Baldwin, Wm. J., World Bldg., New York.
Raymond Bros. Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.

Service Boxes

Fox & Co., John, 253 Broadway, New York.
Johns-Manville Co., H. W., 100 William St., New York.
Water Works Equipment Co., 50 Church St., New York.

Settees (Iron)

Milliken Bros., Milliken, N. Y.

Sewage Disposal

Albright & Mebus, Land Title Bldg., Philadelphia, Pa.
Allis-Chalmers Co., Milwaukee, Wis.
American Pipe & Construction Co., Philadelphia, Pa.
American Process Co., 68 William St., New York.
Ansonia Mfg. Co., 30 Church St., New York.
Atlas Dryer Co., Cleveland, Ohio.
Cameron Septic Tank Co., 352 & 356 Monadnock Block, Chicago, Ill.
City Wastes Disposal Co., 156 Fifth Ave., New York.
Edson Mfg. Co., 257 Atlantic Ave., Boston, Mass.
Grunsky, C. E., 45 Broadway, New York.
Lewis & Kitchen 1200 Michigan Ave., Chicago, Ill.
Merritt & Co., 125 Front St., Camden, N. J.
Pacific Flush Tank Co., 184 La Salle St., Chicago, Ill.
Phillips, Richard H., Security Bldg., St. Louis, Mo.
Potts, Clyde, 30 Church St., New York.
Shone Co. 861 Blackhawk St., Chicago, Ill.
United Paving Co., Atlantic City, N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Sewer Braces (See Trench Braces)

Sewer Buckets (See Buckets, Sewer)

Sewer Flushers (Automatic)

Barron & Cole Co., 127 Franklin St., N. Y.
Merritt & Co., 125 Front St., Camden, N. J.
Pacific Flush Tank Co., 184 La Salle St., Chicago, Ill.

Sewer Pipe (See Pipe, Vitrified Clay)

Shackles

Broderick & Bascom Rope Co., St. Louis, Mo.
Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.

Mention "Engineering Record" when writing.

Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Terry & Tench, New York.

Shafting

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Carnegie Steel Co., Pittsburg, Pa.
Cresson Co., Geo. V., Allegheny Ave., West of 17th St.,
Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Jones & Laughlin Steel Co. Pittsburg, Pa.
Platt Iron Works Co., Dayton, Ohio.
Power & Mining Machinery Co., Milwaukee, Wis.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Shears (Angle and Beam)

Bertsch & Co., Cambridge City, Ind.
Buffalo Forge Co., Buffalo, N. Y.
Fairbanks Co., New York & Chicago.
Pels & Co., Henry, 90 West St., New York.
Wiener Machinery Co., 50 Church St., New York.

Sheaves for Wire Rope (Hoisting)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Channon Co. H., Chicago, Ill.
Cockburn Barrow & Machine Co., 30 Church St., New
York.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Ellicott Machine Co., Bush & Severn Sts., Baltimore.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Flory Mfg. Co., S., Bangor, Pa.
Hunt Co., C. W., West New Brighton, N. Y.
Longenecker & Co., Chas. W., 150 Nassau St., New
York.
Patterson Co., W. W., Pittsburg, Pa.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Terry & Tench, New York.
Trenton Iron Co., Trenton, N. J.
Union Iron Works, Hoboken, N. J.
Vulcan Iron Works, Chicago, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.

Sheet Metal Work

Berger Mfg. Co., Canton, Ohio.
Cockburn Barrow & Machine Co., 30 Church St., New
York.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Janney, Steinmetz & Co., Philadelphia, Pa.
Leader Foundry & Machine Co., Quincy, Ill.
Lupton's Sons Co., David, Allegheny Ave. & Witte St.,
Philadelphia, Pa.
Milliken Bros., Milliken, N. Y.
Mullins Co., W. H., Salem, Ohio.
Petroleum Iron Works Co., Sharon, Pa.
Pullman Automatic Ventilator Mfg. Co., York, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Stuebner Iron Works, G. L., Ft. of 12th St., L. I. City,
New York.
Whitehead & Kales Iron Works, Beecher Ave. & M. C.
R. R., Detroit, Mich.

Mention "Engineering Record" when writing.

Sheets (Galvanized)

American Rolling Mill Co., Middletown, Ohio.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Garry Iron & Steel Co., Cleveland, Ohio.
Inland Steel Co., Chicago, Ill.
Milliken Bros., Milliken, N. Y.
Riverside Bridge Co., Martin's Ferry, Ohio.

Sheets (Iron and Steel)

American Rolling Mill Co., Middletown, Ohio.
Asbestos Protected Metal Co., Canton, Mass.
Berger Mfg. Co., Canton, Ohio.
Clinton Bridge & Iron Works, Clinton, Iowa.
Garry Iron & Steel Co., Cleveland, Ohio.
Inland Steel Co., Chicago, Ill.
Kenwood Bridge Co., 1416 First Nat. Bank Bldg., Chicago, Ill.
Lackawanna Steel Co., 2 Rector St., New York.
Milliken Bros., Milliken, N. Y.
Riverside Bridge Co., Martin's Ferry, Ohio.
Whitehead & Kales Iron Works, Beecher Ave. & M. C. R. R., Detroit, Mich.

Sheets (Roofing)

American Rolling Mill Co., Middletown, Ohio.
Asbestos Protected Metal Co., Canton, Mass.
Berger Mfg. Co., Canton, Ohio.
Garry Iron & Steel Co., Cleveland, Ohio.
Inland Steel Co., Chicago, Ill.
Johns-Manville Co., H. W., 100 William St., New York.
Riverside Bridge Co., Martin's Ferry, Ohio.

Shoring and Underpinning

Foundation Co., 115 Broadway, New York.
Underpinning Co., 290 Broadway, New York.

Shovels and Picks (Hand)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Fairbanks, Morse & Co., Chicago, Ill.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Obermayer Co., S., Cincinnati, Ohio.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 No. Fourth St., St. Louis, Mo.

Shovels, Steam (See Also Excavating Machinery)

Atlantic Equipment Co., 30 Church St., New York.
Bellefontaine Foundry & Machine Co., Bellefontaine, O.
Bucyrus Co., South Milwaukee, Wis.
Marion Steam Shovel Co., Marion, Ohio.
Thew Automatic Shovel Co., Lorain, Ohio.
Souther & Co., John, Box 3118, Boston, Mass.

Shutters (Rolling)

Milliken Bros., Milliken, N. Y.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Wilson Mfg. Co., J. G., New York.

Sidewalk and Vault Lights (See Lights, Sidewalk)

Mention "Engineering Record" when writing.

Sidewalks

Aberthaw Construction Co., Boston, Mass.
Ash, John Wm., Austell, Ga.
Blome Co., R. S., Unity Bldg., Chicago, Ill.
Carey Construction Co., 211 Lennox Bldg., Cleveland.
Cuozzo, Donato, Park Row Bldg., New York.
Eastern Asphalt Supply Co., 115 Broadway, New York.

Skips

Allis-Chalmers Co., Milwaukee, Wis.
Channon Co., H., Chicago, Ill.
Cockburn Barrow & Machine Co., 30 Church St., New York.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machinery Co., Niagara Falls, N. Y.
Hunt Co., C. W., West New Brighton, N. Y.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Mitchell & Tappen, 122 Liberty St., New York.
New York Cableway & Engineering Co., 2 Rector St., New York.
Power & Mining Machinery Co., Milwaukee, Wis.
Tippett & Wood, Phillipsburg, N. J.
Union Iron Works, Hoboken, N. J.
Warner Co., Charles, Wilmington, Del.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland.

Skylights (See Also Lights, Sidewalk and Vault)

American Luxfer Prism Co., 42 Madison St., Chicago.
Burt Mfg. Co., Akron, Ohio.
Drouve Co., G., Bridgeport, Conn.
Lupton's Sons Co., David, Allegheny Ave. & Witte St., Philadelphia, Pa.
Miliken Bros., Milliken, N. Y.
Mullins Co., W. H., Salem, Ohio.
National Ventilating Co., 337 East 26th St., New York.
Pulman Automatic Ventilator Mfg. Co., York, Pa.

Slag

Warner Charles Co., Wilmington, Del.

Sluice Gates

Allis-Chalmers Co., Milwaukee, Wis.
American Spiral Pipe Works, Chicago, Ill.
Coldwell-Wilcox Co., Newburgh, N. Y.
Chapman Valve Mfg. Co., Indian Orchard, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Cockburn Barrow & Machine Co. 30 Church St., New York.
Coffin Valve Co., Neponset, Boston, Mass.
Fox & Co., John, 253 Broadway, New York.
Merritt & Co., 125 Front St., Camden, N. J.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Pittsburg Mfg. Co., Pittsburg, Pa.

Snow Plows

American Locomotive Co., 30 Church St., New York.
Barron & Cole Co., 127 Franklin St., New York.

Sockets

Allis-Chalmers Co., Milwaukee, Wis.
Broderick & Bascom Rope Co., St. Louis, Mo.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Johns-Manville Co., H. W., 100 William St., New York.
Raymond Bros., Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.

Mention "Engineering Record" when writing.

Speaking Tubes

Berger Mfg. Co., Canton, Ohio.
Ostrander Co., W. R., 22 Dey St., New York.

Specifications (See Books)

Spikes (Railroad)

Channon Co., H., Chicago, Ill.
Jones & Laughlin Steel Co., Pittsburg, Pa.
McCoy Co., Henry J., 65-67 Dey St., New York.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 No. Fourth St.,
St. Louis, Mo.

Sprinkling Carts (See Street Sprinklers)

Stacks (See Chimneys)

Stairs (Spiral)

Belmont Iron Works, Philadelphia, Pa.
Burr, E. M., Champaign, Ill.
Milliken Bros., Milliken, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Whitehead & Kales Iron Works, Beecher Ave. & M. C.
R. R., Detroit, Mich.

Standpipes. Tanks. Towers

Abenague Machine Works, Westminster Station, Vt.
Alberthaw Construction Co., Boston, Mass.
American Bridge Co., 30 Church Ct., New York.
Baltimore Cooperage Co., 37 S. Howard St., Baltimore.
Belmont Iron Works, Philadelphia, Pa.
Chicago Bridge & Iron Works, Chicago, Ill.
Clinton Bridge & Iron Works, Clinton, Iowa.
Cockburn Barrow & Machine Co., 30 Church St., New
York.
Concrete-Steel Engrg. Co., Park Row Bldg., New York.
Davis, G. M., Palatka, Fla.
Des Moines Bridge & Iron Co., Des Moines, Iowa.
Fairbanks, Morse & Co., Chicago, Ill.
Flint & Walling Mfg. Co., Kendallville, Ind.
Graver Tank Works, Wm., East Chicago, Ind.
Hughes, Steeple Jack, 21 Walcott St., Brooklyn, N. Y.
Janney, Steinmetz & Co., Philadelphia, Pa.
Kenwood Bridge Co., 1416 First Nat. Bank Bldg., Chi-
cago, Ill.
Kratzer & Co., W. N., Pittsburg, Pa.
Lackawanna Bridge Co., 50 Church St., New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Milliken Bros., Milliken, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.
Mitchell & Tappen, 122 Liberty St., New York.
Murray Iron Works, Burlington, Iowa.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Penn Bridge Co., Beaver Falls, Pa.
Petroleum Iron Works Co., Sharon, Pa.
Phoenix Iron Works Co., Meadville, Pa.
Portland Wood Pipe Co., Portland, Ore.
Rider-Ericsson Engine Co., 35 Warren St., New York.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Riverside Bridge Co., Martin's Ferry, Ohio.

Mention "Engineering Record" when writing.

Scaife & Sons Co., Wm. B., Pittsburg, Pa.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Sharon Boiler Works, Florida St., Sharon, Pa.
 Shoemaker & Co., Lewis F., Harrison Bldg., Philadelphia, Pa.
 Struthers-Wells Co., Warren, Pa.
 Terry & Tench, New York.
 Tippet & Wood, Phillipsburg, N. J.
 Treadwell Construction Co., Midland, Pa.
 Union Iron Works, Hoboken, N. J.
 U. S. Wind Engine & Pump Co., Batavia, Ill.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
 Whitehead & Kales Iron Works, Beecher Ave. & M. C. R. R., Detroit, Mich.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Steam Specialties

American Blower Co. Detroit, Mich.
 American District Steam Co., Lockport, N. Y.
 American Injector Co., Detroit, Mich.
 American Steam Gauge & Valve Mfg. Co., 208-220 Camden St., Boston, Mass.
 Ashten Valve Co., 271 Franklin St., Boston, Mass.
 Baldwin, Wm. J., World Bldg., New York.
 Builders Material Supply Co., 301-305 Scarritt Bldg., Kansas City, Mo.
 Channon Co., H., Chicago, Ill.
 Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
 Foster Engineering Co. Newark, N. J.
 Lunkenheimer Co., Cincinnati, Ohio.
 McDowell & Co., Grant & Western Aves., Allegheny, Pa.
 Powell Co., Wm., Cincinnati, Ohio.
 Sturtevant Co., B. F., Hyde Park, Mass.
 Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
 Zelnicker Supply Co., Walter A., 406 No. Fourth St., St. Louis, Mo.

Steamboat Ratchets

Patterson Co., W. W., Pittsburg, Pa.
 Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.

Steel Plate Construction

American Bridge Co., 30 Church St., New York.
 Atkinson Co., Wm. H., Hudson River at 7th St., Hoboken, N. J.
 Berger Mfg. Co., Canton, Ohio.
 Berlin Construction Co., Berlin, Conn.
 Chicago Bridge & Iron Works, Chicago, Ill.
 Cockburn Barrow & Machine Co., 30 Church St., New York.
 East Jersey Pipe Co., 50 Church St., New York.
 Graver Tank Works, Wm., East Chicago, Ind.
 Kenwood Bridge Co., 1416 First Nat. Bank Bldg., Chicago, Ill.
 Lackawanna Bridge Co., 50 Church St., New York.
 Lake Erie Engineering Works, Buffalo, N. Y.
 McCoy Co., Henry J., 65 & 67 Dey St., New York.
 McNeil & Bros., James, Pittsburg, Pa.
 Milliken Bros., Milliken, N. Y.
 Minneapolis Steel & Machinery Co., 2584 Minnehaha Ave., Minneapolis, Minn.
 Mitchell & Tappen, 122 Liberty St., New York.
 Oregonia Bridge Co., Lebanon, Ohio.
 Petroleum Iron Works Co., Sharon, Pa.

Mention "Engineering Record" when writing.

Riter-Conley Mfg. Co., Pittsburg, Pa.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Sharon Boiler Works, Florida St., Sharon, Pa.
 Smith & Son Co., Samuel, Paterson, N. J.
 Struthers-Wells Co., Warren, Pa.
 Tippet & Wood, Phillipsburg, N. J.
 Treadwell Construction Co., Midland, Pa.
 Union Iron Works, Hoboken, N. J.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
 Whitehead & Kales Iron Works, Beecher Ave. & M. C.
 R. R., Detroit, Mich.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Steel (Reinforcing, (See Reinforcement Steel for Concrete Structures)

Steel Ribs and Lagging (See Also Centers)

Belmont Iron Works, Philadelphia, Pa.
 Blaw Collapsible Steel Centering Co., 710 Westinghouse
 Bldg., Pittsburg, Pa.
 Carnegie Steel Co., Pittsburg, Pa.
 Jackson, Geo. W., 754-756 Jackson Bvd., Chicago, Ill.

Steel Substructures for Tanks

American Bridge Co., 30 Church St., New York.
 Belmont Iron Works, Philadelphia, Pa.
 Boston Bridge Works, 47 Winter St., Boston, Mass.
 Chicago Bridge & Iron Works, Chicago, Ill.
 Des Moines Bridge & Iron Co., Des Moines, Iowa.
 Flint & Walling Mfg. Co., Kendallville, Ind.
 Graver Tank Works, Wm., East Chicago, Ind.
 Kenwood Bridge Co., 1416 First Nat. Bank Bldg., Chi-
 cago, Ill.
 Lackawanna Bridge Co., 50 Church St., New York.
 Oregonia Bridge Co., Lebanon, Ohio.
 Penn Bridge Co., Beaver Falls, Pa.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Sharon Boiler Works, Florida St., Sharon, Pa.
 Tippet & Wood, Phillipsburg, N. J.
 Treadwell Construction Co., Midland, Pa.
 U. S. Wind Engine & Pump Co., Batavia, Ill.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Whitehead & Kales Iron Works, Beecher Ave. & M. C.
 R. R., Detroit, Mich.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Stokers (Mechanical)

American Ship Windlass Co., Providence, R. I.
 Babcock & Wilcox Co., 85 Liberty St., New York.
 Green Engineering Co., Chicago, Ill.
 Murphy Iron Works, Detroit, Mich.
 Westinghouse Machine Co., Pittsburg, Pa.

Stone (Broken and Quarried)

Kettle River Quarries Co., Minneapolis, Minn.
 Rockport Granite Co., Rockport, N. Y.
 Warner Co., Charles, Wilmington, Del.

Stone Dressing Machines

Ingersoll-Rand Co., 11 Broadway, New York.
 Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
 Williams Patent Crusher & Pulverizer Co., Chicago, Ill.

Mention "Engineering Record" when writing.

Straightening Machines, Angle, Beam and Channel, (See Bending, Straightening and Punching Machines)

Strainers (Pump)

Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Channon Co., H., Chicago, Ill.
Emerson Steam Pump Co., Alexandria, Va.
Epping-Carpenter Co., Pittsburg, Pa.
International Steam Pump Co., 115 Broadway, New York.

Strainers (Well)

Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.

Street-Cleaning Tools, Sweepers, Etc.

Austin-Western Co., Ltd., Chicago, Ill.
Barron & Cole Co., 127 Franklin St., New York.
Good Roads Machinery Co., Kennett Sq., Pa.
Studebaker Bros. Mfg. Co., So. Bend, Ind.

Street Sprinklers and Wagon

Austin-Western Co., Ltd., Chicago, Ill.
Barron & Cole Co., 127 Franklin St., New York.
Good Roads Machinery Co., Kennett Sq., Pa.
Longenecker & Co., Chas. W., 150 Nassau St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
Studebaker Bros. Mfg. Co., So. Bend, Ind.

Street Sprinklers (Oil)

American Tar Co., Boston, Mass.
Barron & Cole Co., 127 Franklin St., New York.
Longenecker & Co., Chas. W., 150 Nassau St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Studebaker Bros. Mfg. Co., So. Bend, Ind.

**Structural and Ornamental Iron Works
(See Ironwork, Architectural and Ornamental)**

Structural Steel (See Also Bridges, Roofs, Etc.)

American Bridge Co., 30 Church St., New York.
Baltimore Bridge Co., Baltimore, Md.
Berlin Construction Co., Berlin, Conn.
Boston Bridge Works, 47 Winter St., Boston, Mass.
Buffalo Steel Co., Tonawanda, N. Y.
Burger Iron Co., Akron, Ohio.
Carnegie Steel Co., Pittsburg, Pa.
Central States Bridge Co., Indianapolis, Ind.
Champion Bridge Co., Wilmington, Ohio.
Chicago Bridge & Iron Works, Chicago, Ill.
Clinton Bridge & Iron Works, Clinton, Iowa.
Cockburn Barrow & Machine Co., 30 Church St., New York.
Des Moines Bridge & Iron Co., Des Moines, Iowa.
Franklin Steel Co., Franklin, Pa.
Hudson Structural Steel Co., 136th St. & So. Bvd., New York.
Inland Steel Co., Chicago, Ill.
Jackson, Geo. W., 754-756 Jackson Bvd., Chicago, Ill.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Kenwood Bridge Co., 1416 First Nat. Bank Bldg., Chicago, Ill.
King Bridge Co., Cleveland, Ohio.

Mention "Engineering Record" when writing.

Kratzer & Co., W. N., Pittsburg, Pa.
 Lackawanna Bridge Co., 50 Church St., New York.
 Lackawanna Steel Co., 2 Rector St., New York.
 Lake Erie Engineering Works, Cor. of Chicago & Perry
 Sts., Buffalo, N. Y.
 Milliken Bros., Milliken, N. Y.
 Milwaukee Bridge Co., Milwaukee, Wis.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha
 Ave., Minneapolis, Minn.
 Mitchell & Tappen, 122 Liberty St., New York.
 Noelke Richards Iron Works, Indianapolis, Ind.
 Oregonia Bridge Co., Lebanon, Ohio.
 Penn Bridge Co., Beaver Falls, Pa.
 Pennsylvania Steel Co., Steelton, Pa.
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Russel Wheel & Foundry Co., Detroit, Mich.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Shoemaker & Co., Lewis F., Harrison Bldg., Philadel-
 phia, Pa.
 Snare & Triest Co., 143 Liberty St., New York.
 Steel Roof Truss Co., 618 New Bank of Com. Bldg., St.
 Louis, Mo.
 Terry & Tench, New York.
 Tippet & Wood, Phillipsburg, N. J.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
 Whitehead & Kales Iron Works, Beecher Ave. & M. C.
 R. R., Detroit, Mich.
 Wisconsin Bridge & Iron Co., 605 Colby Abbott Bldg.,
 Milwaukee, Wis.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Stucco (See Cement)

Sugar Mill Machinery

Buffalo Forge Co., Buffalo, N. Y.
 Coldwell-Wilcox Co., Newburg, N. Y.
 D'Olier Engineering Co., 119-121 So. 11th St., Philadel-
 phia, Pa.
 Lake Erie Engineering Works, Cor. of Chicago & Perry
 Sts., Buffalo, N. Y.
 Prosser & Son, Thos., 15 Gold St., New York.
 Pulsometer Steam Pump Co., 16 Battery Pl., New York.
 Raymond Bros. Impact Pulverizer Co., 1500 Harrison
 St., Chicago, Ill.

Sulphate of Iron

American Steel & Wire Co., 115 Adams St., Chicago, Ill.

Superheaters

Babcock & Wilcox Co., 85 Liberty St., New York.
 Parker Boiler Co., Pennsylvania Bldg., Philadelphia, Pa.
 Power Specialty Co., 111 Broadway, New York.

Switchboards

Allis-Chalmers Co., Milwaukee, Wis.
 General Electric Co., Schenectady, N. Y.
 Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Switch Stands and Switches (See Frogs and Switches)

Tanks and Towers (See Standpipes, Tanks, Towers)

Mention "Engineering Record" when writing.

Tanks (Air Compressors)

Abenague Machine Works, Westminster Station, Vt.
Allis-Chalmers Co., Milwaukee, Wis.
American Air Compressor Works, 26 Cortlandt St., New York.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Carroll-Porter Boiler & Tank Co., 907 Empire Bldg., Pittsburgh, Pa.
East Jersey Pipe Co., 50 Church St., New York.
Fairbanks, Morse & Co., Chicago, Ill.
Graves Tank Works, Wm., East Chicago, Ind.
Hush, H. J., 39-41 Cortlandt St., New York.
Ingersoll-Rand Co., 11 Broadway, New York.
Janney, Steinmetz & Co., Philadelphia, Pa.
Kewanee Boiler Co., Kewanee, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Marine Metal & Supply Co., 167 South St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
McNeil & Bros., James, Pittsburgh, Pa.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Murray Iron Works, Burlington, Iowa.
Phoenix Iron Works Co., Meadville, Pa.
Riter-Conley Mfg. Co., Pittsburgh, Pa.
Scaife & Sons Co., Wm. B., Pittsburgh, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Smith & Son Co., Samuel, Paterson, N. J.
Tippett & Wood, Phillipsburg, N. J.
Treadwell Construction Co., Midland, Pa.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
Wickes Bros., 90 West St., New York.

Tanks (Condenser)

Allis-Chalmers Co., Milwaukee, Wis.
Carroll-Porter Boiler & Tank Co., 907 Empire Bldg., Pittsburgh, Pa.
Graver Tank Works, Wm., East Chicago, Ind.
Lake Erie Engineering Works, Buffalo, N. Y.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Phoenix Iron Works Co., Meadville, Pa.
Riter-Conley Mfg. Co., Pittsburgh, Pa.
Scaife & Sons Co., Wm. B., Pittsburgh, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Treadwell Construction Co., Midland, Pa.

Tanks (Creosoting)

Allis-Chalmers Co., Milwaukee, Wis.
Carroll-Porter Boiler & Tank Co., 907 Empire Bldg., Pittsburgh, Pa.
Graver Tank Works, Wm., East Chicago, Ind.
Lake Erie Engineering Works, Buffalo, N. Y.
Petroleum Iron Works Co., Sharon, Pa.
Phoenix Iron Works Co., Meadville, Pa.
Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburgh, Pa.

Tanks (Flush)

Ansonia Mfg. Co., 30 Church St., New York.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Cresson Co., Geo. V., Allegheny Ave., West of 17th St., Philadelphia, Pa.
Graver Tank Works, Wm., East Chicago, Ind.
Janney, Steinmetz & Co., Philadelphia, Pa.
Johns-Manville Co., H. W., 100 William St., New York.

Mention "Engineering Record" when writing.

Merritt & Co., 125 Front St., Camden, N. J.
Pacific Flush Tank Co., 184 La Salle St., Chicago, Ill.
Phoenix Iron Works Co., Meadville, Pa.

Tanks, Gas (See Gas Holders)

Tanks (Wooden)

Abenague Machine Works, Westminster Station, Vt.
Baltimore Cooperage Co., 37 S. Howard St., Baltimore.
Chicago Bridge & Iron Works, Chicago, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Davis, G. M., Palatka Fla.
Fairbanks, Morse & Co., Chicago, Ill.
Flint & Walling Mfg. Co., Kendallville, Ind.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Portland Wood Pipe Co., Portland, Ore.
Rider-Ericsson Engine Co., 35 Warren St., New York.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
U. S. Wind Engine & Pump Co., Batavia, Ill.

Tapes, Steel (See Engineers' and Surveyors' Instruments and Supplies, also Rules and Tapes)

Tapping Machines (See Pipe Taping Machines)

Tar (See Also Paving Joint Filler)

American Tar Co., Malden Station, Boston, Mass.
Barrett Mfg. Co., 17 Battery Pl., New York.
Lackawanna Steel Co. 2 Rector St., New York.

Tees (See Structural Steel)

Terra Cotta (Fireproofing)

Evens & Howard Fire Brick Co., St. Louis, Mo.
National Fireproofing Co., Pittsburg, Pa.
Warner Co., Charles, Wilmington, Del.

Testing Laboratories (Chemists, Etc.)

Conard, Wm. R., 322 High St., Burlington, N. J.
Dow & Smith, 24 East 21st St., New York.
Fidelity Engineering & Inspecting Co., 30 Church St., New York.
Gulick Henderson & Co., 439 3d Ave., Pittsburg, Pa.
Hallet, Nelson A., 1 Ashburton Pl., Boston, Mass.
Hunt & Co., Robt. W., Monongahela Bank Bldg., Pittsburg, Pa.
Lehigh Valley Testing Laboratories, Allentown, Pa.
Love, E. G., 122 Broadway, New York.

Testing Machines

Architects' & Engineers' Supply Co., 1010 Grand Ave., Kansas City, Mo.
Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Kent Mill Co., 170 Broadway, New York.
Power & Mining Machinery Co., Milwaukee, Wis.
Prosser & Son, Thos., 15 Gold St., New York.
Raymond Bros. Impact Pulverizer Co., Chicago, Ill.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.
Vulcan Iron Works, Wilkes-Barre, Pa.
Williams Patent Crusher & Pulverizer Co., Chicago, Ill.

Thermit

Goldschmidt Thermit Co., 90 West St., New York.

Mention "Engineering Record" when writing.

Thimbles (Wire Rope)

American Hoist & Derrick Co., St. Paul, Minn.
American Steel & Wire Co., 115 Adams St., Chicago, Ill.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Broderick & Bascom Rope Co., St. Louis, Mo.
Channon Co., H., Chicago, Ill.
Leschen & Sons Rope Co., St. Louis, Mo.
Patterson Co., W. W., Pittsburg, Pa.
Roebbling's Sons Co., John A., Trenton, N. J.

Ties (Steel and Wood)

Carnegie Steel Co., Pittsburg, Pa.
Gulfport Creosoting Co., Gulfport, Miss.
Wyckoff Pipe & Creosoting Co., 50 Church St., N. Y.
Zelnicker Supply Co., St. Louis, Mo.

Tile

Blackmer & Post Pipe Co., St. Louis, Mo.
Davenport Brick & Tile Co., 226 W. 3d St., Davenport,
Iowa.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Harbison-Walker Refractories Co., Pittsburg, Pa.
N. Y. State Sewer Pipe Co., Rochester, N. Y.
Trussed Concrete Steel Co., Detroit, Mich.

Tipples and Bunkers (See Coal Tipples)

Towers and Tanks (See Standpipes, Etc.; Also Steel Substructures for Tanks)

Track (Cast-Iron Plate)

Hunt Co., C. W., West New Brighton, N. Y.
Leader Foundry & Machine Co., Quincy Ill.
Union Iron Works Hoboken, N. J.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Track, Portable (See Rails and Track)

Track Tools

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Channon Co. H., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Union Iron Works, Hoboken, N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston Mass.
Wiener Co. Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 No. Fourth St.,
St. Louis, Mo.

Traction Ditching Machines (See Also Trench Excavating Machinery)

Buckeye Traction Ditcher Co. Findlay, Ohio.
Parsons Co., G. T., Newton, Iowa.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
St. Paul Ditcher & Carrier Co., St. Paul, Minn.

Tramways, Wire Rope (See Cableways)

Transits (See Also Engineers' Instruments)

Ainsworth & Son, William, Denver, Col.
Bausch & Lomb Optical Co., Rochester, N. Y.
Berger & Son, C. L., Boston, Mass.
Iszard-Warren Co., 136 W. No. 12th St., Philadelphia, Pa.
Keuffel & Esser Co., Hoboken, N. J.
Kolesch & Co., 138 Fulton St., New York.

Mention "Engineering Record" when writing.

Transmission Rope (See Rope, Transmission Power)

Transmission Towers (Steel)

American Bridge Co., 30 Church St., New York.
Milliken Bros., Milliken, N. Y.
Riter-Conley Mfg. Co., Pittsburg, Pa.
U. S. Wind Engine & Pump Co., Batavia, Ill.
Wisconsin Bridge & Iron Co., 605 Colby-Abott Bldg.,
Milwaukee, Wis.
Worden-Allen Co., 115 Adams St., Chicago, Ill.

Traps (Steam)

American Blower Co., Detroit, Mich.
American District Steam Co., Lockport, N. Y.
American Radiator Co., New York & Chicago.
Jenkins Bros., New York.
Sturtevant Co., B. F., Hyde Park, Mass.

Tree Guards (Iron)

Anchor Post Iron Works, 15 Church St., New York.
Belmont Iron Works, Philadelphia, Pa.

Trench Braces

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Bottomley Machine Co., Alliance, Ohio.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dunn Mfg. Co., Pittsburg, Pa.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65 & 67 Dey St., New York.

Trench Excavating Machinery

Austin Drainage Excavator Co., F. C., Railway Exchange, Chicago.
Barron & Cole Co., 127 Franklin St., New York.
Buckeye Traction Ditcher Co., Findlay, Ohio.
Carson Trench Machine Co., 16 Dorrance St., Boston.
Channon Co., H., Chicago, Ill.
Edson Mfg. Co., 257 Atlantic Ave., Boston, Mass.
Hayward Co., 50 Church St., New York.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Marion Steam Shovel Co., Marion, Ohio.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Municipal Engrg. & Contracting Co., 607-611 Ry. Exchange, Chicago, Ill.
New York Cableway & Engineering Co., 2 Rector St.,
New York.
Parsons Co., G. T., Newton, Iowa.
Pulsometer Steam Pump Co., 16 Battery Pl., New York.
St. Paul Ditcher & Carrier Co., St. Paul, Minn.
Thew Automatic Shovel Co., Lorain, Ohio.
Union Iron Works, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago.

Trolleys

Fairbanks Co., New York & Chicago.
General Electric Co., Schenectady, N. Y.
Hunt Co., C. W., West New Brighton, N. Y.
Union Iron Works, Hoboken, N. J.

Trucks (Factory and Warehouse)

Sterling Wheelbarrow Co., West Allis, Wis.
Whitehead & Kales Iron Works, Beecher Ave. & M.
C. R. R., Detroit, Mich.

Mention "Engineering Record" when writing.

Tube Mills

Allis-Chalmers Co., Milwaukee, Wis.
Power & Mining Machinery Co., Milwaukee, Wis.
Prosser & Son, Thos., 15 Gold St., New York.

Tubes, Boiler (See Boiler Tubes)

Turbine Pumps (See Pumps Turbine)

Turbines (Hydraulic)

Allis-Chalmers Co., Milwaukee, Wis.
D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
Leffel & Co., Jas., Springfield, Ohio.
Morris Co., I. P., Philadelphia, Pa.
Platt Iron Works Co., Dayton, Ohio.
Smith Co., S. Morgan, York, Pa.

Turbines (Steam)

Alberger Condenser Co., 140 Cedar St., New York.
Alberger Pump Co., 140 Cedar St., New York.
Allis-Chalmers Co., Milwaukee, Wis.
De Laval Steam Turbine Co., Trenton, N. J.
General Electric Co., Schenectady, N. Y.
Sturtevant Co., B. F., Hyde Park, Mass.
Westinghouse Machine Co., Pittsburg, Pa.

Turnbuckles

American Bridge Co., 30 Church St., New York.
Broderick & Bascom Rope Co., St. Louis, Mo.
Cleveland City Forge & Iron Co., Cleveland, Ohio.
Leschen & Sons' Rope Co., St. Louis, Mo.
Maine Electric Co., Portland, Me.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Milliken Bros., Milliken, New York.
Roebblings Sons Co., J. A., Trenton, N. J.
Pittsburg Mfg. Co., Pittsburg, Pa.
Standard Scale & Supply Co., 50 & 52 S. Canal St.,
Chicago, Ill.
Terry & Tench, New York.

Turntables

American Bridge Co., 30 Church St., New York.
Boston Bridge Works, 47 Winter St., Boston, Mass.
Chicago Bridge & Iron Works, Chicago, Ill.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Hunt Co., C. W., West New Brighton N. Y.
King Bridge Co., Cleveland, Ohio.
Orenstein-Arthur Koppel Co., Pittsburg, Pa.
Pennsylvania Steel Co., Steelton, Pa.
Peteler Car Co., Minneapolis, Minn.
Virginia Bridge & Iron Co., Roanoke, Va.
Weiner Co., Ernst, 470 Hudson Terminal, New York.
Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg.,
Milwaukee, Wis.

Turntables (Overhead)

American Bridge Co., 30 Church St., New York.
Pennsylvania Steel Co., Steelton, Pa.
Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg.,
Milwaukee, Wis.

Twine (Jute)

Channon Co., H., Chicago, Ill.
Leadite Co., Inc., Land Title Bldg., Philadelphia, Pa.
Wood Drill Co., Paterson, N. J.

Mention "Engineering Record" when writing.

Valves (Air)

American District Steam Co., Lockport, N. Y.
American Steam Gauge & Valve Mfg. Co., 208-220
Camden St., Boston, Mass.
Ashton Valve Co., 271 Franklin St., Boston, Mass.
Chapman Valve Mfg. Co., Indian Orchard, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Coffin Valve Co., Neponset, Boston, Mass.
Fairbanks Co., New York & Chicago.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Jenkins Bros., New York.
Merritt & Co., 125 Front St., Camden, N. J.
Monarch Valve & Mfg. Co., 476 Main St., Springfield,
Mass.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Powell Co., Wm., Cincinnati, Ohio.
Rensselaer Mfg. Co., Troy, N. Y.
Revere Rubber Co., Boston, Mass.
Smith Co., H. B., Westfield, Mass.

Valves (Angle, Check, Gate and Globe)

American Steam Gauge & Valve Mfg. Co., 200-220 Cam-
den St., Boston, Mass.
Coldwell-Wilcox Co., Newburgh, N. Y.
Coffin Valve Co., Neponset, Boston, Mass.
Fairbanks Co., New York & Chicago.
Fox & Co., John, 253 Broadway, New York.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Jenkins Bros., New York.
Kellogg Co., M. W., 50 Church St., New York.
Lunkenheimer Co., Cincinnati, Ohio.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Monarch Valve & Mfg. Co., 476 Main St., Springfield,
Mass.
National Valve & Mfg. Co., Pittsburg, Pa.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Pittsburg Mfg. Co., Pittsburg, Pa.
Powell Co., Wm., Cincinnati, Ohio.
Rensselaer Mfg. Co., Troy, N. Y.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Valves (Blow-off)

American Steam Gauge & Valve Mfg. Co., 208-220
Camden St., Boston, Mass.
Ashton Valve Co., 271 Franklin St., Boston, Mass.
Coldwell-Wilcox Company, Newburgh, N. Y.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Coffin Valve Co., Neponset, Boston, Mass.
Fairbanks Co., New York & Chicago.
Jenkins Bros., New York.
Lunkenheimer Co., Cincinnati, Ohio.
Monarch Valve & Mfg. Co., 476 Main St., Springfield,
Mass.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Powell Co., Wm., Cincinnati, Ohio.
Walworth Mfg. Co., 128 & 136 Federal St., Boston, Mass.

Valves (Foot)

Allen, John F., 370-372 Gerard Ave., New York.
American Spiral Pipe Works, Chicago, Ill.
American Steam Gauge & Valve Mfg. Co., 208-220
Camden St., Boston, Mass.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Boston Belting Co., Boston, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.

Mention "Engineering Record" when writing.

Coffin Valve Co., Neponset, Boston, Mass.
 Emerson Steam Pump Co., Alexandria, Va.
 Erie Pump & Engine Works, Erie, Pa.
 Fairbanks Co., New York & Chicago.
 Fox & Co., John, 253 Broadway, New York.
 McCoy Co., Henry J., 65 & 67 Dey St., New York.
 Monarch Valve & Mfg. Co., 476 Main St., Springfield, Mass.
 Revere Rubber Co., Boston, Mass.
 Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Valves (Pressure Reducing)

American District Steam Co., Lockport, N. Y.
 American Steam Gauge & Valve Mfg. Co., 208-220 Camden St., Boston, Mass.
 Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
 Fairbanks Co., New York & Chicago.
 Foster Engineering Co., Newark, N. J.
 Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
 Jenkins Bros., New York.
 Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Valves (Pump)

Advance Pump & Compressor Co., Battle Creek, Mich.
 American Steam Gauge & Valve Mfg. Co., 208-220 Camden St., Boston, Mass.
 Boston Belting Co., Boston, Mass.
 Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Emerson Steam Pump Co., Alexandria, Va.
 Epping-Carpenter Co., Pittsburg, Pa.
 Foster Engineering Co., Newark, N. J.
 Goodrich Co., B. F., Akron, Ohio.
 Jenkins Bros., New York.
 Revere Rubber Co., Boston, Mass.
 Worthington, Henry R., 115 Broadway, New York.

Valves (Regulating)

American District Steam Co., Lockport, N. Y.
 Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
 Fairbanks Co., New York & Chicago.
 Foster Engineering Co., Newark, N. J.
 Jenkins Bros., New York.
 Seagrave, F. S., 89 Smith Ave., Detroit, Mich.
 Simplex Valve & Meter Co., Philadelphia, Pa.
 Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Valves (Safety)

Allis-Chalmers Co., Milwaukee, Wis.
 American Steam Gauge & Valve Mfg. Co., 208-220 Camden St., Boston, Mass.
 Ashton Valve Co., 271 Franklin St., Boston, Mass.
 Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
 Fairbanks Co., New York & Chicago.
 Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
 Jenkins Bros., New York.
 Lunkenheimer Co., Cincinnati, Ohio.
 McDowell & Co., Grant & Western Aves., Allegheny, Pa.
 Powell Co., Wm., Cincinnati, Ohio.
 Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Valves (Sluice)

American Spiral Pipe Works, Chicago, Ill.
 Coldwell-Wilcox Co., Newburgh, N. Y.

Mention "Engineering Record" when writing.

Chapman Valve Mfg. Co., Indian Orchard, Mass.
Clow & Son, James B., 342 Franklin St., Chicago, Ill.
Coffin Valve Co., Neponset, Boston, Mass.
Fairbanks Co., New York & Chicago.
Fox, & Co., John, 253 Broadway, New York.
Pittsburg Mfg. Co., Pittsburg, Pa.

Valves (Water Relief)

American Spiral Pipe Works, Chicago, Ill.
Ashton Valve Co., 271 Franklin St., Boston, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Foster Engineering Co., Newark, N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Ventilating Apparatus

Allis-Chalmers Co., Milwaukee, Wis.
American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
De Laval Steam Turbine Co., Trenton, N. J.
Drouve Co., G., Bridgeport, Conn.
Exeter Machine Works, Exeter, N. H.
Green Fuel Economizer Co., Matteawan, N. Y.
Harrison Engineering Co., New York.
Lewis & Kitchen, 1200 Michigan Ave., Chicago, Ill.
Lord & Burnham Co., Irvington, N. Y.
National Ventilating Co., 337-339 E. 26th St., New York.
New York Blower Co., Chicago, Ill.
Pullman Auto Ventilator Mfg. Co., York, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Ventilating Apparatus (Sash Operating)

Baldwin, Wm. J., World Bldg., New York.
Builders Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Drouve Co., G., Bridgeport, Conn.
Hitchings & Co., Elizabeth, N. J.
Luptons Sons Co., David, Allegheny Ave & Witte St.,
Philadelphia, Pa.
National Ventilating Co., 337-339 E. 26th St., New York.
Pullman Automatic Ventilator Mfg. Co., York, Pa.

Ventilators

American Blower Co., Detroit, Mich.
Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Berger Mfg. Co., Canton, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
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